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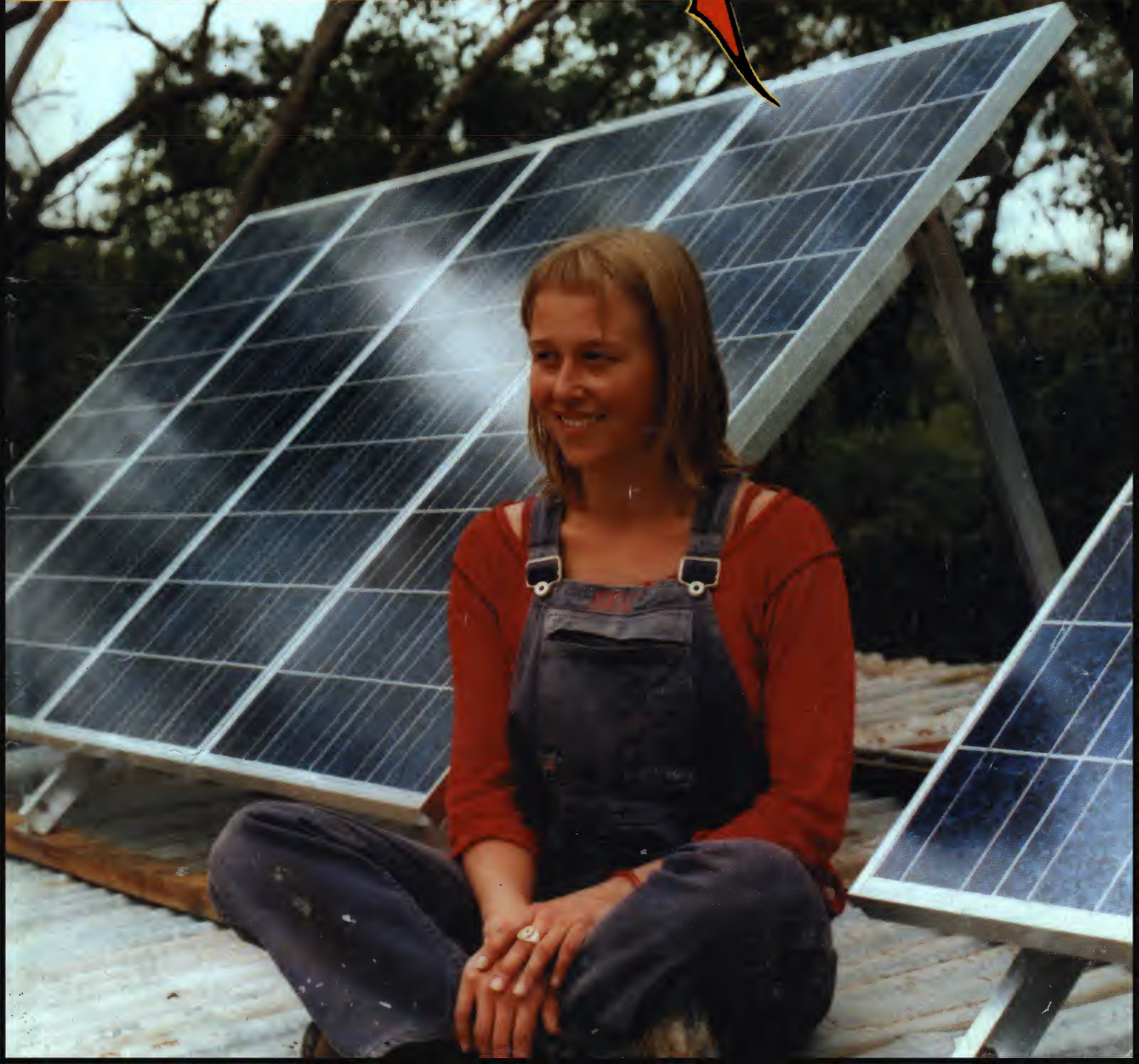
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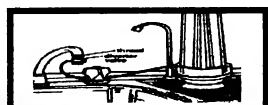
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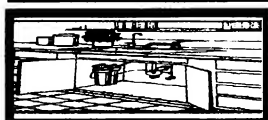
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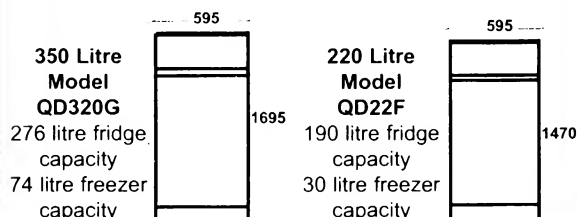
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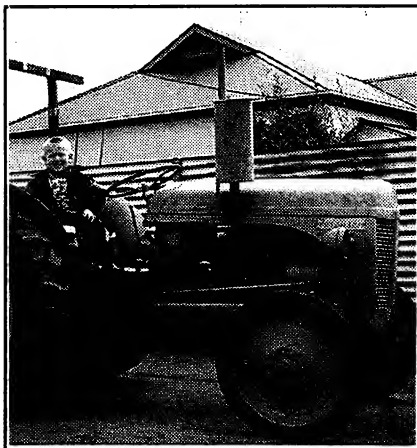
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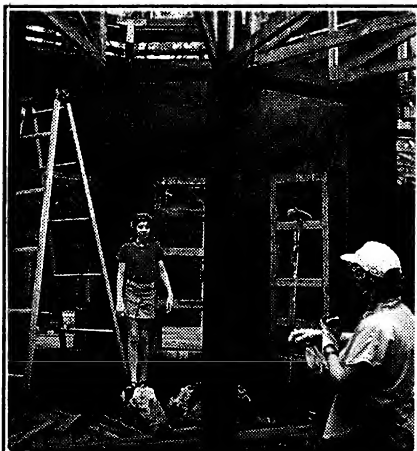
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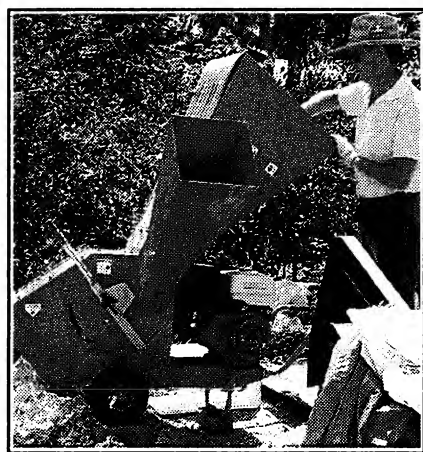
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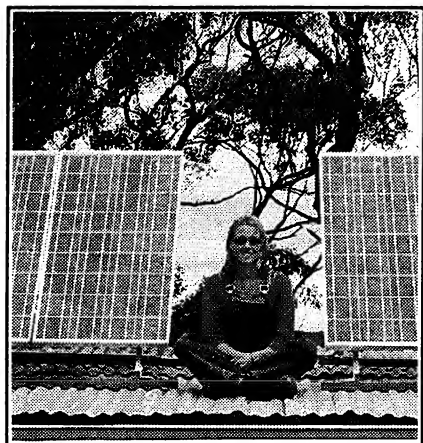
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COVER PHOTOS

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Back Cover: Moving from city to country is exciting and challenging. Clare and Paula Colins approached the adventure with optimism and good humour that has resulted in satisfying achievement in a short time. Read about the development of 'Frogsong' on page 6.

Edited by Megg Miller and Mary Horsfall.

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GUMNUT GOSSIP

by Megg Miller.

We may not have encountered the Y2K bug in our computer system at the year's changeover, but there has most definitely been a contagious chaos virus running amok. We had computer problems for a couple of weeks, and when they were finally solved we were well behind in our schedule. Bits and pieces vanish only to reappear in odd places. Businesses we out-source parts of our production to have been having machine breakdowns or forgetting to return work by the agreed date. Mary and I were not surprised when we found a folder with the text and photos for an article for this issue had just vanished. Considering the number of manila folders floating around the office such hiccups should be more common, but where was it? We looked high and low in a terrible panic, all the while reassuring each other it was bound to turn up. Mary even lost sleep over it. With just one day to the deadline, it was imperative we find it. In the end it was Miss Sunshine who found it, in a rather ordinary place that had only superficially been checked. Our effusive thanks could have gone to her head, except for some obscure reason she was wearing the jug cover as a hat, and looked fabulous. On some of us others it would have appeared wretched. Just a few weeks previously she found an envelope of photos I'd put somewhere for safekeeping (not Mary's office this time, unfortunately) and couldn't recall where. She's basking in our gratitude and deservedly so, but I dare say when she is up to her ears in work with publishing paraphernalia around her, she too will misplace things and we might be able to redeem ourselves.

Being short staffed while we considered applicants for Vicki's job hasn't helped the mayhem. We've each had to lend a hand and Noreen, who is our despatch specialist and gets your orders packed up and off, had to leave her stronghold and juggle phone enquiries and the mail and be all things to everyone. Fortunately we have a very capable newcomer ensconced in the administrative office and we can

now get back on to concentrating on our specific tasks. Sue is settling in and becoming familiar with the idiosyncrasies of our office routines and demands. As she started around the Grassifieds deadline and the phone always runs hot then, it was a trying first week. Sue and hubby live on a rustic piece of land about 40 minutes from work and have read GR for years. To be in the midst of it and be able to learn so much and access our not inconsequential resources is almost too good to be true for Sue, and as a poultry devotee, well, you can see she's going to fit in very well. We hear from Vicki regularly and miss her chirpiness around the office. Sue's smallholder interests and stage in life – they are about to build their house – has already contributed a new direction to office discussions and we know you'll join with us in welcoming her.

'There is a story here, I'm sure, you might like to follow it up,' Mary suggested as she passed over a 'for sale' grassified offering a collection of GR magazines. What an amazing story it turned out to be. I rang and spoke with Helen, who had sent in the note. 'Well yes, we have decided to sell the collection because we've set everything up and are enjoying organic fruit and vegies and chickens we grow or exchange with friends. We got so much help from the magazines over the years we thought someone else might like to benefit from them. And,' she assured me, 'they are in perfect condition, no dog-eared corners or coffee stains because we leafed through them gently. We hope someone will love and appreciate them as much as we have'. We talked on a bit and Helen said, 'You don't recall us do you? We're the couple who called in after a Down to Earth festival years ago and you gave me some blue eggs. Joe was the one who sent the congratulatory etched mirror to mark the 25th GR anniversary.' Incredible! How very small the world is. I indeed recalled Helen and Joe, and both the visit and magnificent wall plaque, and we chatted away like old friends. Joe has just come through a triple bypass



operation and is making slow but sound progress. As he had grown and eaten fresh chemical-free produce for around 20 years, he was astounded when the deleterious condition of his arteries was discovered. Ah, the doctor assured, the damage went back a lot earlier in life. No doubt the healthy living of the last few decades had prolonged Joe's life and also will help him heal. I'm sure Helen had a smile on her face as large as mine when we said goodbye. Actually, I'm still immensely chuffed, not just at the coincidence and how nice it was to renew contact, but because it reinforced my belief that the common interests and concerns most of the GR readers share unite them in friendship, regardless of education, money or social standing.

It's been very distressing watching news reports on the recent floods around Australia. So many people have never encountered the destruction wrought by this natural disaster and so don't fully appreciate the extent of damage or difficulty in removing the smell of mud and rotting debris from buildings. We hope readers who have been caught up in this disaster are finding the energy and will to sort through the chaos and start rebuilding their lives. I'm sure if seeds or cuttings for re-establishing gardens are needed readers will generously share their bounty. We featured an interesting article by Susan Hands on the trauma of flooding in issue No 133 and it brought home what a frightening and depressing experience it was. There is not much we can do en masse but express compassionate concern to those affected and extend the offer to help in any way appropriate to the GR ethos. We hope the weather is kind in forthcoming months and assists the regeneration process. Our thoughts are with you all.

IN LESS THAN THREE YEARS

by Clare Colins, Nanango, Qld.

We are frequently astonished at how much people are capable of achieving in a short time. This story is particularly remarkable as it concerns two city women with no previous experience of country living. They have learned a lot, mostly the hard way by trial and error, have accomplished their dream in less than three years, and are both now happier and healthier than they've ever been. Clare Colins's story also strongly conveys the feeling that through it all she and Paula have enjoyed themselves and never regretted the decision to leave their city jobs and run away to the country.

Almost four years ago life was very different. Business suits, long lunches and meetings were the order of the day. Communication was by phone, fax, modem, computers and the internet. Do we miss it? Not one bit! Our world spun around on its axis when, in August '96, I asked my girlfriend: 'What would you like for your birthday?' 'I want you to quit work,' was her reply. For the previous four years I had been ill with CFS, so her request sounded quite sane. I quit that day. Shortly after, Paula quit her job too. Now what? 'Let's move to the country,' said I. 'Right oh,' said she. 'I'm sure your health would improve with some peace and quiet, clean air and good food.' The hunt for our piece of paradise began.

As I had been a GR reader on and off for almost 20 years, I had a few ideas, and, together with Paula's fond memories of holidays on a dairy farm in Victoria, these were enough to get us going. We each had a 'running away fund' of about \$16,000, so we were looking for land in the \$20,000 - \$30,000 bracket.

From my reading, and the experience of living in various parts of several countries, I knew that a north-east aspect, good soil and close proximity to large trees were fixed priorities. Also, having lived with the high humidity of the coast, I was keen to move inland.

Paula, from Melbourne, was wanting to experience warmer sunnier winters.

We began our search in August and by September had bought a beautiful 10 acres at Nanango in south-east Queensland for \$30,000. The block was mostly cleared, but with a stand of old gum trees in one corner and a wildlife corridor in another. The soil was good and the block had a north-east aspect and was on the east side of a hill. Boundary fences were in good condition and there was an excellent dam site. A 4 x 8 metre home-built 'shed', a small garden shed and a 500 litre water tank completed the picture. Just what we'd hoped for.

The task of packing up and moving two houses (not to mention garden plants) was a wee bit daunting, but garage sales helped reduce the junk component.

We moved on to our land in January '97, into the hastily lined, extended shed.

The week we had available to line the shed was hot! Approximately 37° C every day. Life was pretty primitive: no power, a long-drop loo, and outside cooking and showering. We were still running at city speed though, so it didn't take us too long to get 'sorted'.

From newly found friends we bought a slow combustion stove (Evelyn Everhot), had it rebricked and installed complete with hot water system. Paula and I constructed the shower recess using corrugated iron and a bath tray we found. The shower tree was a Valentine's pressie! Friends from Brisbane came up one weekend and helped build a kitchen sink unit for the green cast iron sink we bought for \$35 (with taps) at a demolition yard. Without power, every task had to be thought out carefully. Grunting and cursing were a part of every project. My daughters Emma and Heidi and their boyfriends Mathew and Daniel visited and their help was greatly appreciated. 'Le Shed' became quite livable.

After weeks of using ice in a broccoli box as an Esky we managed to find a kero fridge. Anyone who has had one knows they barely keep things cold in summer and freeze everything solid in winter, but they are better than ice in a broccoli box!

We had taken the risk of moving here before my house sold in



Paula with the piglets bought to raise for future consumption. A story for another time.

Brisbane, and things were not looking good. I had only had one offer – \$20,000 less than I needed to pay off the mortgage. Believe it or not, it finally sold – the night before it was to be repossessed – for my original asking price, allowing us to settle all debts. There was even a little left over. Time to start buying trees and chooks.

We tried digging holes to plant trees, but after seven years of drought it was very hard going. Small trees were going to need some help. Next project: get some compost worms. We built two worm beds, three metres long and one and a half metres wide, by banging in stakes to hold up the boards. We lined these with feed sacks cut open. After many trips to the neighbours' cow paddock with buckets, there was enough poo to get started. We then bought one kilogram of composting worms. Paula made covers for the beds by sewing together potato sacks. They looked very smart and stopped the worms and poo drying out. The worms munched away and multiplied quite quickly. We spent many a happy hour in the sun separating worms from vermicast. Every tiny tree we bought was planted with a handful or two of worm poo. They all survived despite low rainfall that year. As the worms multiplied we needed more food for them, so bought five tonnes of cow manure from the holding yards of a local dairy. A five-tonne cow pat looked pretty funny. They ate their way through it in 12 months. Now we have so much vermicast we can collect it by the bucketful. No more worm sorting.

Next came the chook pen – a mobile pen made from scraps of mesh, shade-cloth and polypipe (still in use today as a rooster fattening pen). We bought four Plymouth Rock hens at the local market and soon had our own superior eggs and fertilised patches around the baby orchard. 'Let's get a rooster and breed

our own,' said I. So next market day (one month later) we bought Charlie, a magnificent bird. We put him in the pen with the hens and they pecked his comb till it bled. They did not like him one bit! 'A rooster at the bottom of the pecking order just isn't right,' said Paula. 'We'll have to build a bigger pen, put him in and introduce the girls.' Mistake number one coming up.

We picked up 'bits' from a local hardwood mill and buckled iron from the dump, and, again with hand-tools only, attempted to build a chook pen. Four trees in a squarish area looked okay, so we nailed flat bits of wood and tin on to them, wrapped some mesh around and popped in an old cupboard as a nesting box. The open-topped pen was ideal – for crows, goannas, and anything else that fancied fresh eggs and baby chicks. No good at all. After a couple more disasters we really thought about what was required in a chook pen:

- feral (and domestic) animal proof,
- wild bird proof – they eat the grain,
- airy yet water and wind proof.

Still with hand-tools only we built chook pen mark ten! First of all we selected the spot – shady in summer, sunny in winter. Then we dug a trench about half a metre deep all around. Into the trench we hammered star pickets about one metre apart. Corrugated iron scraps went into the trench sideways, so that there was a wall around the perimeter. On to the star pickets we pushed five-centimetre polypipe and made arches the width of the pen. We then back-filled the trench and netted the whole thing with bird wire. The roost is an old water tank on its edge with a doorway cut into it and large branches wedged across. One-third of the pen we covered with thick polythene, stapled to the polypipe. The doorway into the pen we made by inserting 12 millimetre polypipe into sleeves sewn into heavy duty



Clare in the productive garden well fertilised with worm castings.

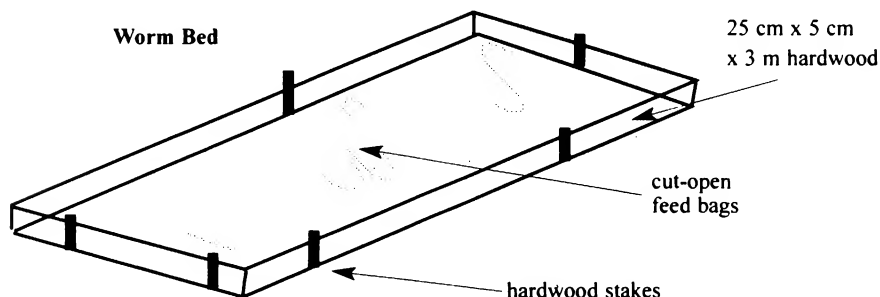
shade-cloth. One side we wired onto the polypipe arch and the other hooks into the mesh. A potato vine now rambles over the pen and it looks pretty good. More importantly, it works! We have bred and given away/sold quite a few beautiful hens. The roosters we eat. Recently, visitors from Melbourne said it was the best chook pen they'd ever seen. Aren't some people lovely?

The vegie garden came next. Based on the mandala idea, we marked out an 18 metre diameter circle using a stake and string. We used sawdust to show the perimeter and the keyhole beds – ten in all.

With ground as solid as rock, we thought the 'no-dig' method appropriate. Hah! One hundred and twenty bags of horse poo and 60 bales of hay on top of moistened newspaper. No rain, no decomposition. Twelve months later we were still finding newspaper. Still, we didn't expect much the first year, so the stalwart vegies that did manage to grow were a real bonus. Now, three years later, after much mulching, digging-in of compost and planting of seedlings in worm poo, we have lovely, dark brown, friable, moisture-holding soil that's full of worms. All vegies are rotated around the beds and companion planted. Apart from the occasional cabbage moth we share with, we have no pest problems. We don't use any sprays at all and the seeds are all open pollinated.

The garden is fenced to keep out hares and wallabies. Fencing a circle is easy and using maspro clips to attach the mesh to the top and bottom wires is child's play.

During this building stage we relied



on innovation, imagination, lateral thinking and bits and pieces scrounged or saved for. Our income had reduced significantly. Then came some more good fortune. Another matter settled and we were able to build a new home. We designed the house ourselves and had it built facing north. The wide verandah on the north side has become our most-used living area. We chose a local building company and have absolutely no regrets. As we were on site while the house was being built, we could alter bits and pieces as it evolved.

Almost three years ago we moved into our beautiful new home. The wood floors are now scratched and we feel quite settled. We have power and phone, and, even without the technology of the internet (by choice), we feel quite civilised. Le Shed has become a firm favourite with visitors (we all get our own space). My girls call it the 'Love Shack'.

A 2250 litre tank on a four-metre stand supplies gravity-fed water to Le Shed and the house and only needs filling by pressure pump every two or three weeks. All new houses in this shire must have 45,000 litres of rainwater tanks, ours fill remarkably quickly.

The drought is over now. During 1998, 900 mm of rain fell on our property. The dam we had built in January 1997 filled to overflowing in just five days of rain in February '99. A long wait, but worth it. We don't pump

from the dam, but could if we needed to. Right now it is a summer recreation area; and drinking place for Rhietta, the Jersey house cow we bought with calf a couple of years ago; Stew-it, the young 'freezer' steer; and numerous species of wildlife. After Rhietta calved we were glad to be back to milking and cheese making, following the two-month break and our quiet sufficiency of shop-bought milk.

We have worked out a good recycling system utilising everything from our animals. This system works on a three to four week cycle, beginning with the cleaning of the cow paddock (where they are hand-fed and hang around a bit), on to the chook pen, then the compost, then the gardens and trees. Because of the amount of stuff being moved around we did invest in a ride-on mower and trailer. Best investment.

We may have two donkeys here soon. A good home was needed for them and our names were forwarded. We have met the donkeys and their current owners, and all concerned seemed to like one another. So here's to a new adventure – caring for donkeys. We're really looking forward to the day the truck brings them through our front gate. I'm sure there will be many a surprise to come, but we have visited other donkey owners and read some books. We are ready to do our best.

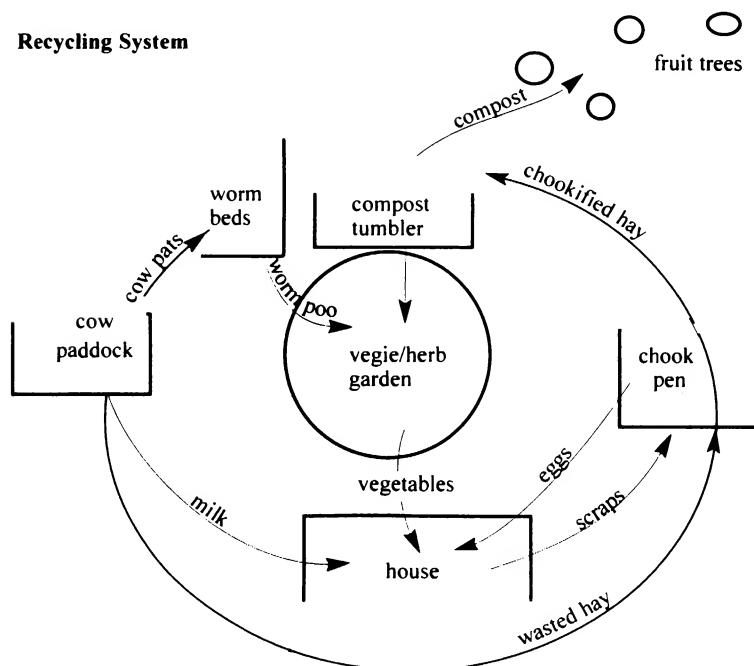
Although our aims at the beginning

were pretty simple – fresh air, peace and quiet, good food – we have managed all that and a degree of self-sufficiency into the bargain. As we can't bear to see any of our healthy produce go to waste, and people aren't always around to give it to, we make jams, pickles and chutney to store for later use and to give away as gifts to our city-bound friends and relatives. We are about to embark on soap/cosmetic making using our strong and healthy herbs and lavender.

Mosaic making was our hobby one year, and our grey water tank and cement water tank bear the fruits of our labours. Because our place is called 'Frogsong' (due to the night-time chorus of many types of frogs), we mosaiced a large climbing frog on the water tank. This gets many comments as it can be seen on the drive up to the house.

Throughout this journey we have always believed in abundance (even using a mantra at times) and good things have constantly come our way. Now the hard work is over – trees planted, hay shed built, more paddock fences erected – we can really relax and enjoy the life we have made for ourselves. We are both happier and healthier than we've ever been and thoroughly recommend that other women, such as ourselves, give it a go.

Recycling System



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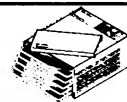
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GIANT EASTER EGGS

by Heather Kozak, Dellicknora, Vic.

Chocolate manufacturers must rub their hands with glee at this time of the year. Frenzied media pressure sends otherwise sane people flocking to the shops to pay elevated prices for pieces of foil and puffs of air, with a thin layer of chocolate in between. I am all for chocolate, and fun, but was being left with a feeling as hollow as the over-packaged confectionary in the aftermath of Easter.

I've always found that the anticipation of an event can be as exciting as the event itself. Do-it-yourself preparations make all those involved feel more connected with the occasion, so I started making chocolate eggs and other Easter novelties at home. After a few dramatic failures I learnt that chocolate, like a child, will behave if I handle it gently. I choose a cool day and abandon myself to the rich smell of hot melted chocolate, feeling like Roald Dahl's immortal character, Willy Wonka, at work in his magical chocolate factory.

There are a variety of plastic moulds available – smooth eggs, textured eggs, rabbits – from craft and cooking shops. However, in the spirit of frugality I recommend starting with the balloon method. It makes an enormous ostentatious egg for next to nothing and is guaranteed to impress.

Chocolate varies in quality from the lowest grade compound stuff to the sublime high-grade indulgence. Start with the cheaper ones while you experiment though.

MAKING THE EGG

Ingredients and Equipment

- 1 balloon
- cup hook
- string
- 1 kg cooking chocolate
- spatula or pastry brush
- double boiler or ceramic bowl
- patience and humour.

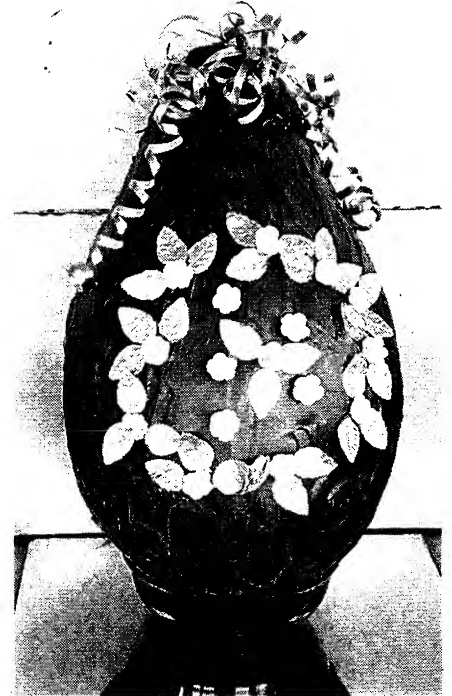
Blow up balloons until you find one

that is fairly oval and egg-like (the deflated balloon can be encouraged and stretched into the right shape). Inflate the balloon to the size you choose. I usually work with one about 30 centimetres tall. Knot the balloon neck, wash it to remove any manufacturing contamination, then look about your kitchen for somewhere to suspend it so it won't touch anything. I have a cup hook screwed into the underside of a shelf above the sink, which is ideal for catching chocolate drips.

Use strong string that will bear a two kilogram weight. I used a length of angora knitting wool once, that being all I could lay my hands on, and the weight of the chocolate-clad balloon caused it to snap, resulting in a Humpty Dumpty style accident! Tie one end to your hook or nail and the other to the knot in the neck of the balloon. Hang your balloon at a good working height and put a tray beneath it to catch any drips that may ensue.

Now comes the time to tread carefully – melting the chocolate can be fraught with peril. It is very sensitive to heat and will scorch, curdle, harden or granulate, depending on its mood. Heat it slowly and gently, so the chocolate never becomes more than lukewarm, in a heavy double boiler saucepan or a thick walled glass or ceramic bowl sitting in a larger container of warm water. Avoid getting water or steam in the melting chocolate also. If you are not in a hurry, you can leave the chocolate in a covered container on a sunny windowsill until it is runny. I've done this by mistake in the car, and it sure does work!

Break the chocolate into small pieces and add one tablespoon of butter (optional) to help maintain elasticity. Melt slowly and stir until smooth, then begin painting the melted chocolate onto the balloon, starting from the narrow top end. Take the coating right up to within one centimetre of the



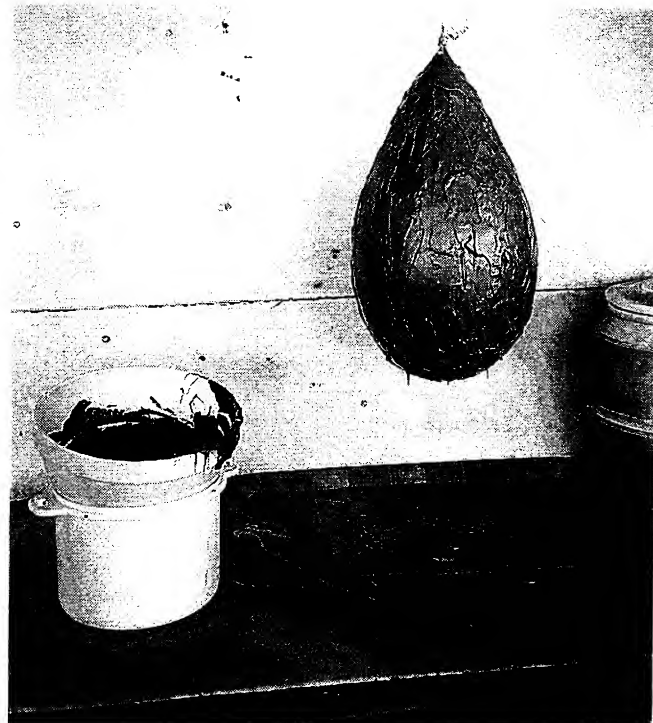
An impressive indulgence by anyone's standards, and so satisfying to create it yourself.

knot, and cover the whole balloon as evenly as you can. Having your chocolate very runny and using a pastry brush will give a smoother finish to your egg, but a rougher surface achieved with a spatula has a nice 'impressionist' feel to it too. The balloon may need two coats of chocolate to make the shell thick and strong enough. Let the first set before adding the second.

Either leave the chocolate balloon where it is, or hang it in a cool dark place to completely set (at least several hours). I like to do the next stage in the cool of the evening or early morning to make handling the egg easier. You will need a padded 'nest' for the egg to sit in while you work on it. I used to use a cardboard box with a clean towel in it, but have progressed to an inflatable rubber ring cushion (for haemorrhoids!) draped with a tea towel. It may



The inflated balloon is carefully covered with melted chocolate, using a spatula or pastry brush.



Chocolate-covered balloon is hung to dry before applying a second coat.

be the butt (sorry!) of some rude comments, but it supports my big eggs safely and securely.

Once you have your egg standing stably, hold the neck of the balloon firmly to prevent it disappearing into the egg and make a small cut in the rubber. The balloon should deflate and wrinkle up, allowing you to gently pull it out of the hollow egg. If it sticks to the inside of the egg a bit, poke a knitting needle or similar object in and ease the rubber away from the walls. If there is only a small hole left at the top, place some foil over the hole and surroundings and rest the palms of your hands against it. The warmth from your hands will soften the chocolate enough to bend it inwards, thus closing the hole.

If the hole is too big, or you have a minor disaster, paint a large circle of chocolate onto a sheet of foil and use this to patch the holes or cracks, smoothing the patch on while it is still slightly warm and malleable and peeling the foil off when it is set hard. If the hole closure still looks a little dodgy, turn the egg upside down and a perfect rounded curve will be revealed.

PACKAGING THE EGG

You can place the egg on a sheet of cel-

lophane and gather the corners into a plume at the top, tying it with a bow, or go for broke and make a special presentation box. Cut down a cardboard box to accommodate the egg. Cut an oval hole at the front to display the egg and leave open or glue an oval of cellophane to the inside of the 'window'. Cut a rectangle of cardboard as wide as the base of the box but twice as long and cut a circle out of the middle that will hold your egg off the bottom of the box. Fold the long ends of the rectangle to make legs and jam the whole thing in the base of the box. Paint the box or cover it with pretty paper, perhaps reused wrapping paper, and admire your resourcefulness and ingenuity.

EMBELLISHING THE EGG

So now you're churning out huge Easter eggs like a deranged Leghorn, is there anything you can do to really gild the lily? Yes indeed. There are no limits to the imagination and creativity you can apply in decorating your chocolate behemoth. Some of the methods I've used are:

- Fill a piping bag with melted chocolate and dribble a squiggly lacy pattern all over the balloon, leaving small spaces. When it is set, I am left with a delicate see-through egg. Use

different colours of chocolate for a spectacular effect.

- Use dark chocolate for the first coat, white for the second and milk chocolate for a last coat. This gives a tri-colour stripe along the edges when the egg is finally broken up.

- Fill a piping bag with white chocolate and draw names, Easter greetings, bunnies, religious symbols, or anything your heart desires, on the sides of the egg. Be bold, the writing can be picked off the set egg and replaced if it goes wonky. Food colouring can be added to the white chocolate to create detailed, edible masterpieces.

- Before closing off the balloon exit hole, place tiny Easter eggs, fluffy chenille chickens or love letters inside for a sweet surprise.

- One week before making the egg, model lots of tiny flowers out of almond paste. Flatter flowers work better than sticking out ones when being attached to the egg. When the flowers are dry and hard, stick them to the egg with a dab of icing or melted chocolate. You can sprinkle them randomly or arrange them to frame another style of decoration.

I hope reading this will egg you on to a delicious, self-sufficient and self-indulgent Easter celebration.

SURPRISINGLY SIMPLE SOLAR

by Mary Horsfall, Longwood East, Vic.



Twenty-five year old Sophie Fraser is thrilled with her new solar power system and pleasantly surprised at how easy it is to operate. Two years ago, wanting to get out of the city, she bought her dream 'mud brick house in the bush' near Castlemaine, Victoria. The house was built about 15 years ago. Apparently, there was originally a shack on 50 acres in the bush, jointly owned by nine alternative lifestyleers. When the shack burnt down the owners held a series of working bees and built the present house in a matter of a few weeks. Sophie is impressed with the standard of workmanship and the incorporation of such features as beautiful old timbers that give the house a distinct character.

When the house came up for sale it was love at first sight for Sophie. The previous owners had not had any integrated power system, just gas lights and a wood stove, so Sophie had to make a decision about how to power

her new home. She knew friends who were living in solar powered homes and the 'good vibes' of this renewable energy system appealed strongly to her. She particularly liked the idea of being able to power her home without contributing to the greenhouse effect. The cost of approximately \$17,000 for a total system to meet her needs was a little daunting, however.

It was at a renewable energy fair last year that she heard of a new Commonwealth Government subsidy scheme to encourage the use of solar energy – the Photovoltaic Rebate Programme. This offered a rebate of \$5.50 per watt, which amounted to over \$5000 on Sophie's proposed system. Suddenly the whole idea seemed much more affordable.

Applying for the rebate was an extensive project in itself, with a range of conditions to be met, including: the owner had to be in residence at the location, not be just a week-

ender; all new equipment had to incorporate; the system had to be designed by an approved installer. Sophie's system was designed by Castlemaine company, RGS Technology, who quoted on the whole job, and then Sophie applied for the grant.

Energy Efficiency Victoria dealt with the grant application in a very short time, indeed living up to the efficiency in their title, according to Sophie. She became the first home owner in Victoria to benefit from the subsidy programme.

Sophie needed a system that was as simple to live with as living on mains power. The system devised by RGS Technology incorporates a generator with the solar system to ensure a constant uninterrupted power supply. As yet, the generator has not been needed, but Sophie expects its incorporation to be justified during bleak winter weather when solar energy stored in the batteries becomes low.

Because the house has an east-west orientation, as well as a steep gable and chimneys, the roof of the house itself was not suitable to mount solar panels on. Friends solved that problem by helping her build a shed/garage on which to mount the eight 120 watt panels.

Sophie's solar system provides enough power to meet normal household needs, including, much to her delight, a refrigerator. She does need to be aware of how much power is needed to run certain equipment, particularly anything with a heating element, and the length of time appliances are run for. However, her motto is 'everything in moderation', and she has found no difficulty in making minor adjustments to her power consumption habits. The wood stove for cooking and winter warmth is all that is needed to complement this surprisingly simple solar system.



Sophie's mud brick house incorporates many unique features.



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For more details, ph: 07-5447-1116

The Australian Greenhouse Office has made \$31 million available for the programme over the next four years. The scheme is administered in Victoria by Energy Efficiency Victoria. For more information contact: RGS Technology on 03-5470-5890, or Energy Efficiency Victoria on 1-300-363-744. Readers in other states can ring the information line on 1-300-138-122.

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ROCK POOLS AND TERRACES

by Ian Brothers, Grenfell, NSW.

Many Grassrooters buy land that the farming community considers rubbish, but that I think is often the most interesting and resource rich, with its rock outcrops and remnant vegetation. This article is about my experience with constructing rock pools and terraces at the base of rock outcrops.

THE ROCK POOLS

We live in a 600 mm annual average rainfall area on granite ridge country in the Warraderry Range, 20 kilometres north of Grenfell, the town where Henry Lawson was born in the gold boom days. Most of the time the evaporation rate is much greater than precipitation. Consequently, we are a bit paranoid about our water supply. Every drop counts. Out here you cannot have too much stored, as now and then we experience a very dry year and a frightening amount of the water store simply evaporates.

Not just humans feel the pinch when water is scarce, but the furry and feathered animals, frogs and reptiles too. The plants are adapted to withstand long periods of dryness and, during summer, the grasses and forbs dry off completely, acting as tinder.

There is no permanent flowing water (above ground that is) near our place. The closest permanent stream is the Lachlan River at the pretty town of Gooloogong, a 20 minute drive. All the creeks are usually dry except when there is sufficient rain for runoff. Ideally, we should have plenty of dams and house tanks to store water, but they are expensive.

When I came here 12 years ago the first major job was to put in two big dams and get an existing one enlarged. This was done by the Soil Conservation Service. Unfortunately, when one of the dams was being dug a rock shelf was found near the bottom. This meant that the dam wouldn't hold water for long. 'We'll fill 'er in if you like – no extra charge.' I declined. The dam was on a creekline with another (leaking) dam further downstream. I reasoned that the new dam would act as a reservoir, slowly

keeping the other dam topped up and useful for longer. 'Bloody rocks,' I muttered (loose translation – blue language under blue skies, as the whole earthworks were costing about \$3000!).

Actually, rocks were a feature I most liked about the 500 acre block. I couldn't happily live on flat country, give me hills and rocky outcrops any day. The soils may be skeletal and the vegetation not so lush, but at least one can be certain that the plough has not been through, nor chemical farming regimes practised. However, water is a problem.

Many parts of the property have large expanses of rounded outcropping granite. At one such place I noticed pools of water lay in weathered depressions for some time after rain. This observation was one of those chance occurrences which set off a train of thought, followed by action, which transformed an area into a significant water catchment.

The rock outcrops are like a giant roof, catching water and letting it run off to the outside edges where rock meets soil. What if I could divert and store that water? It would be very clean and, as we get an average of 50 millimetres of rain per month, there would

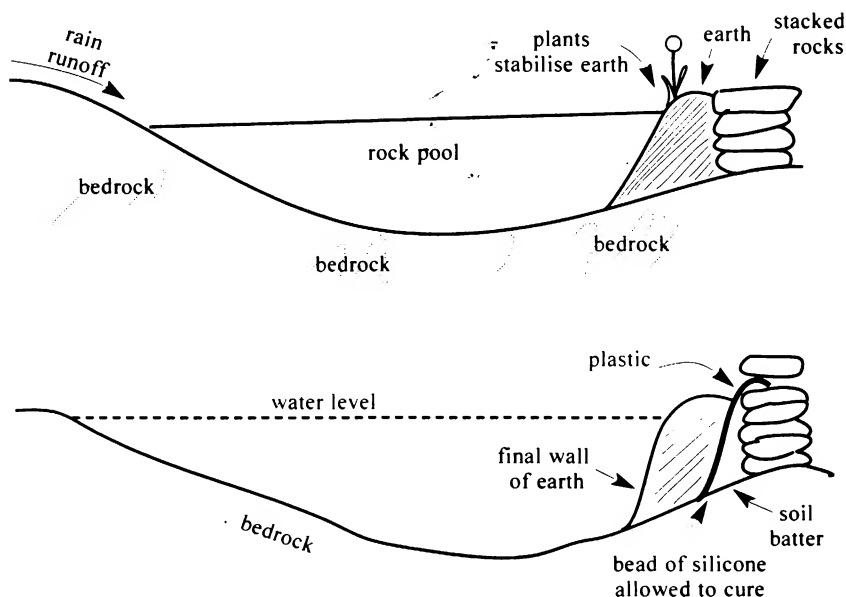
always be water to be caught and stored.

In reality, the rainfall has varied from zero to 295 millimetres in extreme months, but it is a rare month that doesn't have at least 20 millimetres. Remember, that for every square metre of surface area one litre of water is collected for each millimetre of rain falling. For example, a small shed roof of 2 x 5 metres has a surface area of 10 square metres if the roof is virtually flat. This roof will collect 10 litres of water for each millimetre of rain, so a fall of 5 millimetres will catch 50 litres of rainwater.

Looking closer at our rock outcrops, I noticed places where soil had washed and built up in hollows. What if I excavated this soil and used it to form dam walls across the outer (lower) part of the hollows? I'd have small dams which certainly would not leak through the non-porous granite. Brilliant!

It occurred to me that the soil could easily wash away. That problem could be solved by stacking rocks, which we have in abundance, to form a heavy barrier. The soil could be battered up against these stacked-rock walls to make an earth dam. That is precisely what I did.

After making the first dam wall I could barely wait for it to rain to see if the structure worked. I was soon rewarded.



Two other sections were excavated and dammed. All worked beautifully. There was minor leaking through the walls, but I thought they would 'take up' in time. They haven't become totally waterproof, however, it is rare that these rock pools dry up. Beautiful carpets of moss live where the water slowly seeps through. Sedges have taken root in the earth walls. They and other plants stabilise the earth part of the wall. In season the water is alive with tadpoles.

Since building these pools some 10 years ago, events have conspired to prevent me building more. Next time I will try to waterproof the walls using plastic sheet. I will glue the leading edge of the sheet to thoroughly cleaned rock using silicone sealant. This will be allowed to cure before covering with earth. As before, I will have a stacked-rock wall and this time put up a thin batter of earth before laying the plastic. Finally, the main section of earth will be formed into a wall.

Another method of catching water off large expanses of rock before it drains into surrounding soil is to construct rock/concrete diversion gutters following contours on the lower part of the rock expanse. This can funnel water away to a pipeline or into a dam. An old above-ground swimming pool or old water tank (plastic lined or cement rendered) can be the 'dam'. The concrete gutters do not have to be very large.

The rock must be cleaned properly of lichen, moss, and loose particles before laying the concrete. Use a string level to work out contours.

THE TERRACES

While digging out the soil for the rock pool construction I had a lot of leftover

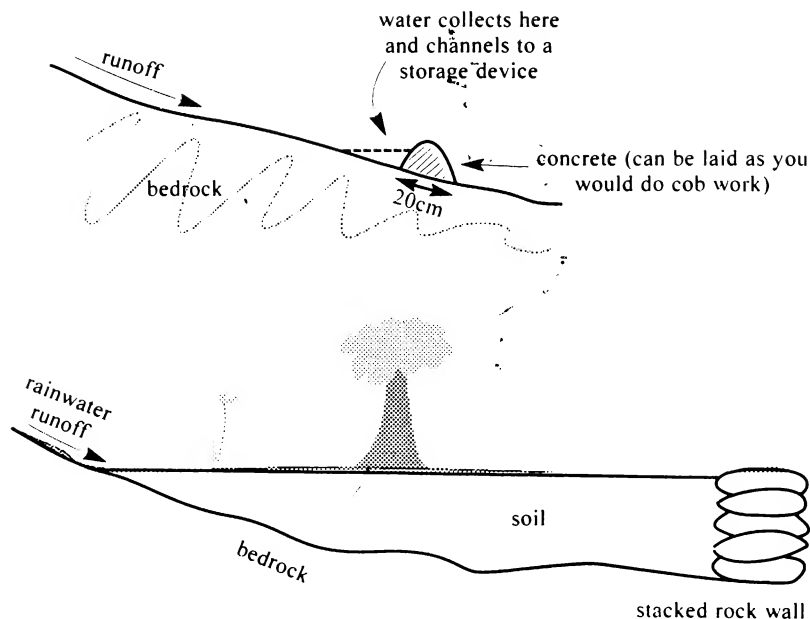
soil. Some was stockpiled but the rest was used for constructing terraces at the base of the large rock expanse.

Again, walls of stacked rocks were laid and the soil from the rock pool excavation site used to backfill level with the top of the rock walls. Runoff rainwater from the rock that doesn't get caught in the rock pools goes to the terraces where self-sown plants thrive. The amount of water that reaches the soil in the terraced areas is a great deal more than a similar surface of soil in a nearby flat area.

The terrace and rock pools are a boon to wildlife and blend in nicely. Water can be siphoned off and sent down to our new home for garden irrigation and fire fighting if necessary. Black poly pipe is cheap enough to send the water the few hundred metres.

I won't make the mistake a neighbour did of placing his poly pipe over the surface of the ridge. He was lucky to have a

good spring low down on his property. He pumped water up to a holding tank then let it gravity feed back to the house through the exposed poly pipe. When this water was really needed during a bad bushfire the pipes melted and he lost the entire water supply.



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FIRST STEPS

by Tania Gilbert, Wild Horse Plains, SA.

Some years ago our son's first steps created one of many new frustrations within our household. It was during the cooler months of winter and, thinking we were doing the right thing, my husband and I bought his first pair of runners.

Much to our dismay, if we put these bulky shoes on his feet, Jamie refused to walk, he wouldn't even stand up in them. If his feet were bare or socked, he was gone, wet feet or no wet feet.

So, I had to come up with a pair of shoes that would be comfy, warm, and something Jamie wouldn't want to remove once out of our sight. And, the most important thing, they needed to be inexpensive. These cosy sheepskin shoes were the result.

HOW TO MAKE

Materials Needed

- 1 bag sheepskin offcuts

Can be found in craftshops, but I found the flea market had bigger bags at the cheapest price (approximately \$3.50).

- paper for tracing the pattern

I found that by tracing the pattern on to cereal box cardboard it was then easier to trace on to the soft leather.

- coloured wool, strong thread or dental floss

For outside shoes it's an idea to give them a little more strength with the combination of thread and wool.

- 2 large sharp needles
- leather hole punch

Optional, but worth the consideration. You can stitch the pieces by hand with just the needles, but I found the finish wasn't as even, and it was more time consuming.

Putting Together

Cut two soles and four sides, making sure to turn the pattern over for two sides.

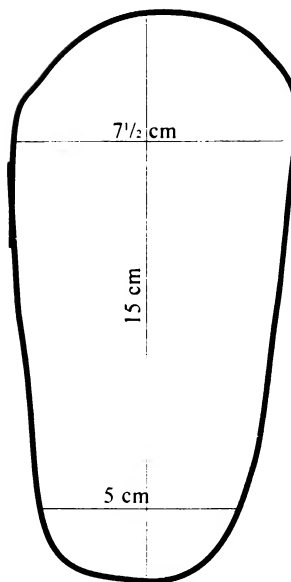
Trim long wool back to a length of about one centimetre, the wool fluff can be recycled in the compost bin or worm farm.

Take a side and a sole, centre them toe to toe. Using the hole punch, punch a hole approx $\frac{3}{4}$ cm from the edge. Anchor thread with a strong knot. Making sure the edges are flush, punch about three or four

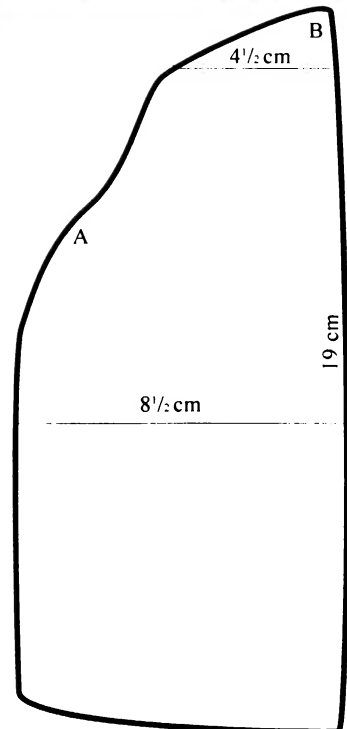


Shoe Pattern

Enlarge pattern as required.



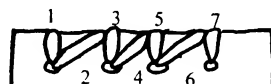
sole, cut 2



side, cut 4

holes along the edge approximately one centimetre apart.

Place one stitch in the first hole, over the top edge and through; place the next stitch in the second hole and repeat.



Punch holes and stitch the edges together. When you get to the heel, line up the other side and complete sewing the sides to the sole. Anchor the thread on the inside of the shoe.

Holding the two sides together, punch holes and stitch between marks A and B. Turn around, punch holes and stitch the

heel. You have finished the first shoe. Punch four holes in the shoe top and thread shoelace or leather thonging through to complete. Repeat the above procedure to complete the pair.

LAST WORDS

Finding offcut pieces large enough to take the pattern is pot luck. In the bag I got I was lucky enough to find sufficient pieces. However, with trial and error, I found I could patch the pieces together, either by hand or on the sewing machine, to make big enough pieces for the pattern.

This simple pattern is easy and cheap to make, taking only a few hours to make up. The best achievement, though, was our son's reaction. He didn't fight us when putting them on and he didn't take them off once outside. Even in wet grass, his feet stayed toasty and warm.

You can dress the shoes up by punching holes along the top opening and continuing the stitching. Or fold the tops over to have a fluffy top. They are only limited by your imagination.

During a conversation with a dear friend, it dawned on me that for \$10 I could have purchased a lambskin pet rug (same place as I got the offcuts) and made many pairs of shoes with less effort.

The pattern can be enlarged to fit any shoe size from child to adult.

Now my next goal will be to patch the rest of the offcuts into a jacket for our son.

COFFEE TORNADO

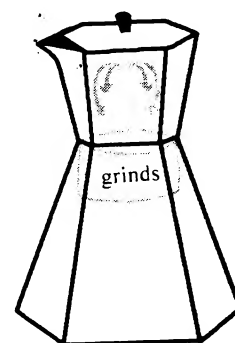
by Aarn, Karangi, NSW

Many readers enquire about home coffee bean processing. In Phnom Penh, Cambodia, in May 1999, I observed a low-tech bean roasting process. On the footpath outside a restaurant, one of the staff was twirling a 25 litre drum over a coal fire. A metal pole had been driven through the centre of the drum, at one end the pole was supported on a pivot, at the other end the person rotated the drum. The aroma – wonderful! After about 30 minutes, the drum was removed (by gloved hands) and the contents spilled out on to a layer of hessian sacks. Then the magic ingredient was added – about half a bottle of Royal Cambodian Whisky (which costs less than \$2 a bottle) was poured over the freshly-roasted beans, which were allowed to cool further before being packed away. The coffee in that restaurant certainly had a distinctive flavour.

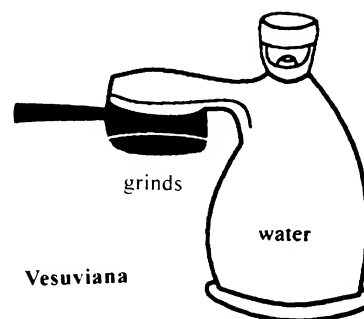
To grind beans without a 240 volt apparatus, you can look around for a mortar and pestle, or one of those small boxes (that look like a mini chest of drawers) with a rotary handle. However, in an op shop I found (for \$2) a 'Zyliss Tornado'. This is a plastic-bodied tool designed to grind meat. It has a hand-wound screw action, the beans being crushed between the moving 'propeller' and fixed metal grill. It's best to not overload the gadget. The grind is a bit rough, but you can send the grinds for a second, finer spin.

For my taste, the best coffee results from blasting boiling water over grinds. If you have gas cooking, the upright 'Vesuvius' machine, which forces water up through the grinds then into a collecting chamber, is good. The 'Vesuviana' is even better – boiling water is channelled laterally then down over the grinds, from where the brew can be collected in a favourite tin mug.

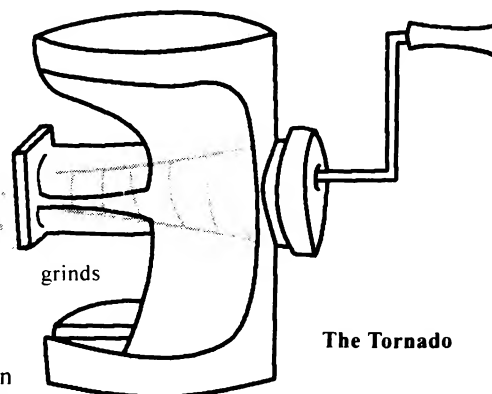
A couple of tips: If you use a drip-lator, it's fine to substitute unbleached paper towelling for those expensive



Vesuvius



Vesuviana



The Tornado

bleached filters. If you use a plunger but have cracked the pyrex body – don't despair! Some laboratory glassware suppliers sell upright 800 or 1000 millilitre pyrex beakers which are the same diameter as the plunger body.

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MAKE YOUR OWN SAUSAGES

Part IV: Drying, Smoking, Storing

by Lucy Daugalis, Daw Park, SA.

You have your sausages all made, the casings neatly filled, now what? Well, now they need to be treated in some way to make sure they'll keep.

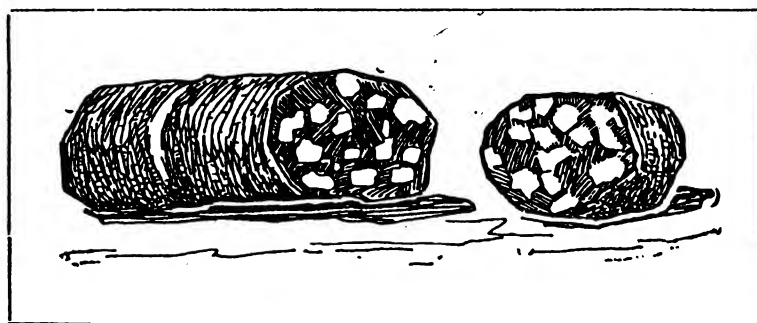
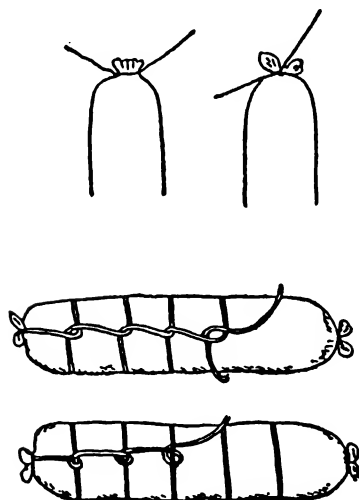
DRYING

The sausages should now be hung on sticks and taken into a dry cool room, where the temperature is 2 – 7° C. It is beneficial to press the thick sausages for 24 hours, and then to tie them with a string (see picture) and hang them up so that they dry off. The thin sausages are dried for three to four days, and the thick ones for five to eight. During that time they are not only drying but are also maturing.

Sausages should dry slowly and evenly, in the outer as well as the inner layers. There should not be any cross-currents of air in the room in which they are hung. Sausages hung in a warm dry place become dry on the outside and the inside remains moist. Such sausages can easily sour.

The finer the meat has been ground and the finer the bacon that has been used, the slower is the drying of the sausages. Sausage which has been coarsely ground dries evenly.

Tying Sausages For Hanging.



SMOKING

It is very bad for sausages that are being smoked when the smoke is dry and hot. Then part of the fat in them melts, fills the little spaces and coats the casing, so that the smoke cannot get through. The surface of such sausages becomes dry and hard. The sausages remain without the typical taste of smoked sausages, do not have the bright red colour, and crumble when cut.

Smoke of 12 – 16° C is needed for smoking sausages. Smoking time depends on the thickness of the sausages and the amount of smoke. For thin sausages two or three days of smoking is sufficient, the thick ones need four to six days. In abundant smoke, they can be processed in shorter time.

An experienced sausage maker can tell by the colour and firmness, whether the sausages have been sufficiently smoked. When smoked in insufficient smoke, even for a longer time, the sausages do not get the typical colour of smoked sausage. Such sausages should be smoked for another 12 hours in stronger smoke and then their colour improves.

STORING

If one wishes to keep the sausages for a long time, a place that is dry, cool and well ventilated is needed. Sausages kept in a damp place do not dry well and it is hard to prevent them acquiring mould. It is best to keep them with other smoked meats in a well-equipped storeroom.

It is best to coat sausages that are to be kept for a long time with egg white diluted with a little water to which a small amount of bicarb soda or salicylic acid is added; then they do not dry out too much.

The sausages do not tend to become mouldy if their surface is coated with the following mixture: Into melted wax is mixed some good quality fresh lard, enough that the cooled-down mixture remains soft and easily spread in a thin coat. Add to the warmed mixture, a little benzoic acid (about two to three percent) dissolved in a little alcohol. The sausages should be without any mould or should be well-cleaned off.

When the sausages are kept damp, the surface is often coated with a white or greyish-yellow coat. This is the work of flour weevils. They stay on the surface of the sausages and harm only the outer appearance. They can be removed with strong salty water, diluted vinegar, or by smoking the sausages in cold smoke.

FAULTS IN SAUSAGES

Souring

When the sausages are dried in too much warmth, the outer layer of the meat becomes hard and souring cannot be prevented. The sausages can be more or less sour, depending on how many micro-organisms have arisen in the meat. The dried out surface of the sausages prevents the smoke from reaching the interior and destroying the beginnings of the acid-causing bacteria.

Similar conditions for souring arise also when the meat is crushed during grinding, or when soft mushy bacon is added, or when the bacon melts over the meat during a too-hot smoking. When the sausages are cut, they are not of a stable, red colour, because they soon become greyish pink. Sometimes the colour of such souring-affected sausage is uneven, with the middle or the outer surface being of an unclear greyish-pink colour.

Acrid Taste

An acrid taste is given to the sausage because of the splitting of albumen, through the activity of bacteria by which the meat has been contaminated through careless and unhygienic handling during production. Favourable conditions for these bacteria arise through the crushing of meat during grinding and when unsuitable runny bacon is used. Such an acrid tasting sausage is almost unsuitable for eating. There are no means to improve it.

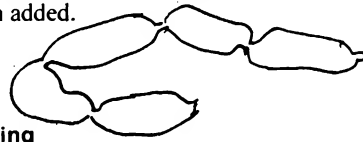
Bitter Taste

A bitter taste in the sausages depends upon the alterations in the fat through bacterial influence. When the sausages are kept in the light they become bitter more quickly. Often with older sausage the fat on the outer layer gets a bitter

taste. Sometimes this happens because of badly prepared casings, especially when the old bitter fat is not removed properly.

Greying

Grey sausages become such because of strong souring, also because they were made from frozen or poor quality, unhealthy animal meat. Sausages can look greyish because of insufficient maturing. If the maturing of sausages has been interrupted by drying them out too quickly or keeping them too cold, the muscle-colouring matter hasn't had a chance to manufacture a sufficiently stable colour. Also, greyness can occur when, after smoking, they are kept cold and damp. They can also become grey from too large an amount of saltpetre having been added.



Crumbling

Sausages that are uneven crumble because when they are smoked in hot smoke, the fat dissolves and coats the little pieces of meat. In such sausages there may be spaces and they are not the typical, properly smoked sausage of a clear red colour.

Crumbly sausages occur also when they are kept damp for a long period of time; then the fats, through the influence of light and bacteria, break up, becoming soft and acrid.

Next time: recipes for making sausages.

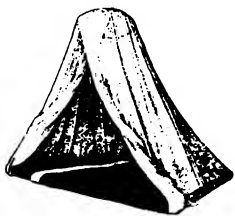
POSSIBLE CAUSE OF LUPUS AND MS

The chemical aspartame, otherwise known as UltraSweet, Equal, or Spoonful, has been implicated as a poison that could result in lupus, MS, brain tumours and a host of other symptoms. Apparently, the methanol in aspartame converts to formaldehyde at temperatures of over 30°C. Some symptoms that could be the result of chronic methyl alcohol toxicity may be improved or even cured by omitting such things as diet soft drinks etc from the diet.

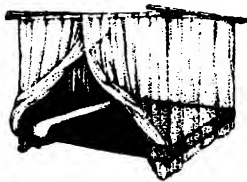
BEER USE-BY DATES

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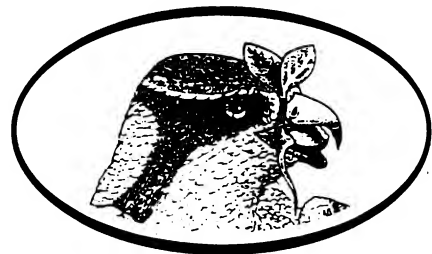
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FIRST AID FOR HAND INJURIES

by Debra Lynne, Kilsyth, Vic.

If there's one thing that those of us interested in a *Grass Roots* lifestyle have in common, it's a tendency to injure our hands and fingers while pursuing our gardening, building, cooking and crafts. As a GP, I never cease to be impressed by how well these minor wounds respond to a range of simple treatments. Hippocrates himself once modestly said: 'I dressed the wound – God healed it'. Which brings me to the main point of this article – the importance of matching the right remedy to a given injury. First, a commonsense warning. If your finger won't bend or straighten by itself, or if there's any numbness (nerve damage), a doctor should be consulted urgently. 'If in doubt, check it out!'

LACERATIONS

For minor cuts, you really can't go past the time-honoured band-aid. If possible, leave the dressing off at night. This allows the skin to breathe at a time when more trauma to the wound is unlikely.

For deeper cuts, the best thing to use is a special stretch dressing cut into fine strips (these used to be called 'butterfly' closures). Several good brands are stocked by most chemists, or you could make your own using stretch strapping tape. If you use this type of dressing to hold the wound edges together, it shouldn't be changed any more often than twice a week.

A tip for those with sweaty palms – a dab of friar's balsam on either side of the wound, allowed to dry before applying sticky dressings, will help hold the adhesive in place. But don't get any on the wound itself; although it's an excellent antiseptic it stings like mad!

CRUSH INJURIES

Crush injuries to fingertips are another common hazard. If you can still bend the finger, the best first aid is to soak the injured area in a mixture of one part peroxide to three parts warm water for a few minutes to remove any dirt from the damaged tissue. Then slather on heaps of Vaseline (to stop dried blood sticking to the dressing later on), and apply a clean, nonstick dressing such

as Telfa, with a bandage over the top. Keep it dry, and leave the finger alone for at least two or three days to give the healing process a chance to get underway. Nothing damages delicate tissues more easily than changing the dressing too often!

If the wound develops an infection, increasing pain and a bad odour will soon let you know. If the dressing *does* stick despite your precautions, soak it off in a saline solution (half a teaspoon of salt to 300 ml of cooled boiled water), and apply even more Vaseline next time.

BURNS AND SCALDS

Burns are another fact of life for do-it-yourselfers. The only first aid for burns is to plunge the part in cold water. Don't apply butter or toothpaste, or even antiseptic cream. Cold water is the best by far. Keep the burned area under water until the heat starts to go out of it. This could take up to half an hour, so be patient.

You can roughly gauge the severity of a burn by how quickly it blisters. If the burn swells up immediately into a leaky blister, it will need medical attention. Almost all burns in children fall into this category.

If the blisters are intact, don't burst them. Blister fluid is an ideal healing environment for the delicate skin beneath (this also applies to ordinary blisters caused by chafing). Once the blisters have burst, however, these types of wounds should be kept moist under their dressings with a mild antiseptic cream. Aloe vera gel is excellent in this situation.

ABRASIONS

For abrasions, bathe with the saline solution mentioned above. This is gentler to the skin than a strong antiseptic, and cleans most wounds quite adequately. The salt is also kinder to damaged tissue than plain water, which can cause the injured cells to swell and release fluid (that's why your skin wrinkles after a long bath!).

If the abrasion is dirty, use the peroxide solution mentioned earlier. Listerine, diluted one in four with water, is another



excellent antiseptic, as is a good strong brew of cooled chamomile tea. Then, aloe vera gel and a nonstick dressing.

If the abrasion is on a protuberance such as a knuckle, which is tricky to dress, try friar's balsam. This will form a 'skin' over the graze and helps to stop bleeding. But, be warned, it *stings*.

BITES

Lastly, a word about animal bites. Herbivores (apart from having blunter teeth in the first place), seldom cause serious infections. Carnivores often do. Their long pointy teeth and dirty mouths deposit germs deep in the skin, where oxygen can't help to sterilise the wound. If it's been more than ten years since your last tetanus shot, a booster is recommended.

Bathe bites with peroxide, then apply a dry dressing. Check daily for signs of infection, particularly if the bite was contaminated by human saliva. (We have the dirtiest mouths of any common animal you'd like to name!) If there is swelling, redness, pain or pus, an antibiotic may be required.

Remember, our hands are a miracle of engineering, and the most valuable tools we own. Proper attention to minor injuries will help keep them that way!



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WHAT'S ON

Courses, field days and festivals galore give us the opportunity to be out and about enjoying the cooler weather before the bleakness of winter sets in.

SPORT HERITAGE CELEBRATED

The National Trust in NSW is focussing this year's annual Heritage Festival on sport. Nearly 300 separate events, most to be held in early April, will showcase Australia's sporting legends and diverse sporting history. Penny-farthing bicycling, fun-runs, sports portraiture, horse racing and a rugby league exhibition match are just a few of the events to look out for. For information about events call Carolyn Haywood on 02-9258-0146.

RURAL COURSES

Several venues in NSW offer courses relevant to a rural lifestyle, with a wide range of subjects being offered, from horse management to worm farming, environmental awareness to farm chemicals. Call: Open Training and Education Network - Distance Education, 1-300-652-947, or 02-9715-8511; Tocal, 1-800-025-520, or 02-4939-8881; Richmond College of TAFE, 02-4570-9056; TAFE Sydney, 02-9217-3829.

STRAW BALE WORKSHOPS

The huge interest in this low-cost energy-efficient building method is being catered for by an increasing number of courses and workshops. John Glassford is conducting workshops in many regions of Australia. Phone 02-4465-1624 to find out if there is one planned for your area.

YARRA VALLEY EXPO

Agriculture from the field to the table is this year's theme, with the emphasis on sustainable farming and living. Features organics, biodynamics, permaculture, gourmet food and wine, alternative building, renewable energy, entertainment and much more. Lecture programme with environmental speakers. For details ph: 03-9730-1722.

ECHUCA VINTAGE RALLY

One of the biggest events of its kind in Australia, it features working demonstrations and exhibits of pioneer crafts, arts, bush cooking, rural lifestyles, and a range of entertainment. Of particular interest are working steam and oil engines and working horses. For information contact: 03-5480-1808.

FESTIVAL OF THE SOUTHERN OCEAN

Visit beautiful Mallacoota at Easter and see the cultures of the Southern Ocean come together in a celebration of music, performance, visual art and community fun. To be held from April 15 to 25. For information contact: Wayne Macauley, 03-5158-0890.

MIND, BODY, SPIRIT FESTIVALS

This increasingly popular festival will be held this year in Brisbane at the Convention and Exhibition Centre from April 29 to May 1, and in Melbourne at the Exhibition Centre from June 9 to 12. For information call Vynka Jones, 03-9819-0211.

MELBOURNE SHEEP AND WOOL SHOW

A must-visit for anyone interested in sheep and wool. Held at the Royal Melbourne Showgrounds July 21 to 23. Phone 03-9281-7444 for details.

DEANS MARSH PIONEER FESTIVAL

A family day of history and fun, including wood chop competition, chainsaw sculptors, market stalls, country produce, live entertainment, heritage games and competitions. To be held at the Deans Marsh Recreation Reserve on April 30. Phone 03-5236-3388, or 03-5236-3206 for more information.

AUSTRALIAN HERB CONFERENCE

To be held from July 7 to 9 at Townsville. Featured speakers include Penny Woodward and Bill Hankin. Workshop topics cover a variety of practical and innovative herby fields. For details contact: Valda Williams, PO Box 314, Aitkenvale 4814. Ph: 07-4773-6327.

TOTAL FIELD DAY

To be held from May 5 to 7 at Tocal Agriculture College in the Hunter Valley, NSW. The theme for this year is 'Click Here For a Rural Future'. The focus is on sustainable rural development, agricultural opportunities and market needs, and the atmosphere is one of country excitement and entertainment with plenty to interest all members of the family. For more information contact 02-4939-8820.

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THE REINCARNATION OF NYLON

by Caroline Tully, Windsor, Vic.

Has anyone noticed a proliferation of ladies swanning around decked in colourful tie-dyed nylon slips, nighties and assorted bed wear? I sure have. Nylon is a versatile synthetic material that can be moulded into a variety of articles such as combs and machine parts. Nylon monofilaments are also used for bristles and can be spun into yarn. Nylon is tough, abounds in opportunity shops in the form of discarded ladies' lingerie, and can be collected by the home-dyer and recycled into wearable, attractive garments.

This is what The Benevolent Dyers, two Melbourne women (myself and a like-minded colleague), do with the abundance of old slips available in most opportunity shops. Nylon does not dye with vegetable dyes, so synthetic dyes have to be used. Nylon dyes with any wool dye and we use 'Landscape' dyes. The use of these dyes involves a simple one-step hot dyebath method with excellent fastness properties.

You may shudder at the thought of using chemical dyes, but by mixing the leftover dyes together again and again, and immersing the slips into the then-usually-black mixture, a light grey-purple which can be used as the slip's base colour can be achieved. Otherwise, we use the leftover water to pulp paper for handmade paper making, and this often dyes the paper whatever colour the leftover dye mixture is. Another option is to paint the nylon with fabric paint which leaves no residue as it is all applied to the garment.

CREATING A FASHION GARMENT

If you want a popular product to sell at markets, here's what you have to do.

Obtaining Materials

- Grab all the nylon slips and attractive nighties from your local opportunity shop. Country op shops tend to be cheaper than city ones, but the average price for nylon items is around \$1.



Caroline Tully displays how an old nylon slip can be transformed to create an individualised outer garment.

- Collect a large store of elastic bands. These are used to create the patterns on the garment by blocking the access of the dye to selected parts of the fabric.

- Find two large cooking pots that will only be used for dyeing. These too are usually available in op shops.

- Buy your dyestuff and some rubber gloves. Landscape dyes are avail-

able from: Kraftkolour, Factory 11/72-74 Chifley Drive, Preston, Victoria 3071. Phone: 03-9484-4303. Email: kkolour@vegas.com.au They have a mail order catalogue available.

Method

Now you are ready to start. The secret to tie-dye patterns is all in the folding. For a spiral pattern, lie the gar-

ment out on the floor flat and get a stick and poke it into the middle of the dress, twirl the stick to the right or left so it rolls up into a compressed spiral, then take the stick out and put one or two elastic bands around the bundle to keep the spiral pattern in place. To get a spotty effect, simply tie individual elastic bands on various bunches of the dress. For a stripy pattern, tie elastic bands around the whole length of the dress, beginning at the bottom, then the middle and chest area. More elastic bands can be added for more stripes. For a checked effect, fold the dress in half lengthwise or sideways. A marbled pattern can be achieved by crumpling the dress into a ball and putting one or two elastic bands around it.

Now the nylon is ready to be transformed in the dyebath. If you have two dyepots, fill them with two different colours. Immerse half your slips in one and half in the other. Now you will have, say, pink slips and green slips. Take those garments out when done and mix the contents of the two dyepots together. Either throw in some untied nighties to give them a base colour other than white, or use the mixture for paper pulp-

ing. Undo the newly tie-dyed nylon and have a look at the patterns you created. Either leave them as a finished product or make two new dyebaths, retie the slips in a different pattern and immerse them in a new colour.

After rinsing the newly dyed items in water that will be used for another dye batch, hang them on the line to dry. Rinsing the nylon in water you will use for a new dyeing session will not usually affect the colour of the next dyebatch as the dye in the previous batch is usually exhausted and there is not enough of it to make much of a difference anyway. The drying stage is where you can relax with a refreshing homebrew and admire your work as it dries. This process can become so absorbing that you might find yourself tying and dyeing again before the garments on the line have even had a chance to dry!

Later design additions to your slips can be achieved by adding ribbons, fabric paint or sequins to your newly recycled nylon fashion. Now it's off to market with your new clothing range. Or perhaps your friends are enamoured of your dyeing skill and buy up all your stock instead. Either way, tie-dyeing nylon garments from the op shop is a

great way to restock your own wardrobe and that of your friends, or make items for a fun and profitable market stall. Old nylon is here to stay, it does not decompose well, it's not going to be worn again by its original owner, so it might as well be recycled by the crafts person who reincarnates it into an attractive and sought-after garment.



YOUR FARM AND THE GST

The Federal Department of Agriculture, Fisheries and Forestry has produced a tape containing valuable information on how the GST will affect primary producers. Alan Sharp at the department can be contacted on 02-6272-3933 to arrange your free copy. The Farmers Federation in each state is also playing a leading role to assist rural and regional areas in the transition to the GST under the Rural GST Start-Up Assistance Programme. Contact the Federation in your state for assistance and information, or for details about seminars and workshops in your area regarding the new tax system.

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IT'S NEVER TOO LATE

by Bruce Dunn, Raymond Terrace, NSW.

Megg's 'Gumnut Gossip' in GR 131 mentioned that 'few of us have the time or opportunity to travel regularly so it's handy to have someone to do the sleuthing for us.' This comment encouraged me to write and tell you of a memorable, once-in-a-lifetime trip my wife and I made about three years ago. I hope you enjoy reading about it.

I hungrily reread the newspaper article dated 24 February 1970: 'Coast to coast in just 65 hours. The new Indian-Pacific luxury passenger train left Sydney's Central Station for Perth last night.' The article went on with details of cost etc, but already my imagination was on fire. Wouldn't it be wonderful to make that trip, right across Australia . . . by train . . . sleeping on the train . . . seeing the Nullabor? But there's the kids, and our limited earnings, and meagre savings, maybe one day . . .

Twenty-five years later, house fully paid for, all the children off our hands, still some retirement funds left, not getting any younger, why not now?

PREPARATION

'Don't you have any with two lower sleeping berths?', enquired I anxiously. 'Well we have the Deluxe Cabin, but it's a lot dearer and generally reserved for Prime Ministers and such like.'

'But I'm frightened of falling out of the upper berth.' 'Sir, in 25 years of travelling, we've never had anyone fall out of the upper berth.'

Then, the solution, let my wife have the top bunk! We made the booking.

Some months later, bookings confirmed, luggage packed, we excitedly made our way to Central Station. Yes, there it was at its special platform, the longest train I had ever seen, with its gleaming silver carriages identified by the flying eagle emblem. 'Quick, take a photo of the emblem!' Of course, there was no need to hurry. We were two hours early and wouldn't be allowed to board for another hour, but excitement gave us urgency.

What if there's a double booking? Or maybe an error in the tickets? Time also



Bruce and Margaret are about to realise a longtime dream as they wait at their local station for a connecting train.

gave us anxiety. 'Oh you're a born worrier,' came my wife's gentle reprimand. Could she have meant 'warrior'?

At last we were allowed aboard and into our private 'twinette' accommodation. Bounce on the lounge, isn't it comfortable? And there's a mirror with lights. And look, here's a switch for the radio. And look, this can be your wardrobe and that'll be mine. Hey, look in here. You pull this down and flush with this button and when not in use you put it up again and that makes room for the shower.

We were like newly-weds examining our honeymoon suite and thoroughly enjoying the experience, and the train hadn't even left Central!

THE JOURNEY

'We're moving!' 'Yes dear.' 'Right on time!' 'Yes dear.' 'Now where's that map they gave us? I want to check the times as we come to the various stations.' It was the old railway man of 50 years ago com-

ing out in me.

'Let's walk along the train a bit and see what it's like.'

We passed an attendant who explained how we could help ourselves to coffee, tea and biscuits when required. Then down to the lounge car where we mingled with other passengers who exuded the same air of pleasurable expectancy. It was the advertising brochures come to life. There were some folk who appeared to take up permanent residency in this particular car, in close proximity to the refreshment bar. As the journey progressed so did the level of their conviviality. But not for us. We had timetables to check on, desert plains to see, photographs to take.

The voice on the public address system announced our meal and we made our way to the decorously furnished dining car. Again the glossy advertisements came to life and we partook of the first of many sumptuous meals.



At Cook Bruce and Margaret were amused by the other side of the sign, which read: 'Our hospital needs your help. Please get sick. If you're crook come to Cook.'

THE NIGHT

Having sorted out our 'berthing' problems, we settled down for the night. But sleep evaded us, or me at least. The berth was perfectly comfortable, but the buildup of excitement was too much. It mattered not. There was the musical singing of the welded rails to listen to, the gentle swaying of the carriage to enjoy, the occasional ringing of warning bells at darkened level crossings, and the conveniently located bed-lamp which assisted me to determine our location on the map. I had recently read accounts of great railway journeys in other lands, and here was I, participating in my own adventure. Who needed sleep?

I specially anticipated our arrival in the early hours of the morning at Ivanhoe. I had visited there years ago and been intrigued by its flatness and the redness of the soil. But this time I would see nothing of these in the darkness of early morn. After temporarily stopping we slowly edged past a level crossing. There was a large semitrailer patiently waiting for us to pass so that it could continue on its long trek through the lonely night. Its motor was idling softly, its lights shining onto the train. I could just make out the darkened image of the driver sitting quietly behind the wheel. What were his thoughts? Was he wondering whether one day, perhaps, he may be a passenger on the Indian-Pacific? His lights clearly distinguished my pyjama-clad person bending intently at the window. I saw his arm rise in a silent salute. I solemnly returned the

greeting. And with that humble exchange a lifelong memory was formed. Then the moment was gone, ships that pass in the night, and yet a memory that lingers still.

HIGHLIGHTS

'Three and a half days on a train! What did you do all the time?', many have asked. 'Looked out the window,' came our reply. It was wonderful. Recognising the reality of the name Nullabor, meaning literally, no trees; looking for the next kilometre peg every 36 seconds; travelling the longest straight section of railroad in the world (480 kilometres of it!), capturing on film the nests of wedge-tailed eagles positioned on top of the steel telegraph poles. The hilarity of the train crews as the two Indian-Pacifics slowly passed each other in the middle of the desert where greetings were exchanged with the help of dippers of water. Our half-hour stopover at Cook in the centre of the Nullabor, perfectly flat, perfectly dry, not a blade of grass on its entire golf course.

CONCLUSION

Reluctantly, I must draw to a close this journey down nostalgia lane. Would I do it again? Undoubtedly, only next time, south to north on the Ghan! To reinstate myself in the estimation of readers, I must inform you that my wife slept in the upper berth for one night only. After determining that no harm had befallen her, I gallantly changed places for the remainder of the trip.

CUSTOMER SERVICE FOR LAND QUERIES

Natural Resources and Environment has set up a Customer Service Centre to assist Victorians needing information. For the cost of a local call, 136-186, you can be put in touch with experts on how to deal with such issues as fox or rabbit control, or the spear thistle or prickly pear that has invaded your property. Natural Resources and Environment has also put out a booklet and CD on preventing the spread of weeds by raising the awareness of machinery and vehicle operators.



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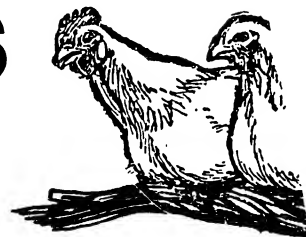
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THE ROOSTING OF THE CHOOKS

by Robbie Heard, Nanango, Qld.



Some time ago my funds were at a low ebb and I was trying to raise two boys and put myself through college. To make ends meet I was forced to return to my country roots. In an attempt to put a few extra nutrients on the table I purchased some battery hens at the amazing price of 60 cents each. The farmer even threw in a bucket of feed with my ten chooks. Have you ever seen a battery hen? Hardly any feathers, long talon-like feet, red, scrawny, miserable and generally burnt out.

Home I went with my newly acquired livestock and deposited them in what I considered to be a very up-to-scratch chook pen. Lawn clippings on the floor, two 20 litre drums filled with soft pine shavings for nests, and, of course, a specially selected mulberry branch for a perch. You would have gathered by now that I'd farmed the odd chook in my day.

That night I went to sleep sound in the knowledge that I would be breakfasting on farm-fresh eggs. No farmer ever felt more satisfied with a good day's farming well done. I must admit that I was out of bed a little earlier than usual the next morning. My two boys had entered into the spirit of the event and were patiently waiting at the chook pen gate in order to get a first-hand

view of the awaiting bounty.

Those poor chooks; there they were huddled in the corner where I had left them, squatting in a mixture of chook poop and broken eggs. I was quite perplexed. The water trough had not been touched and the food we'd left them over in the feeder had not been eaten. The perch that we had gone to so much trouble to select had been ignored by those ungrateful creatures. I returned to the kitchen, quietly put the frying pan back in the cupboard, and, with my doubting sons, ate a breakfast of dry toast in silence.


I returned from lectures that evening to find that my two sons had placed the water and feed in front of the chooks so that they at least had something to eat and drink. The boys had managed to salvage three eggs, which meant we would eat that night. After a meal of an egg each we went back to the pen to see if the chooks had made any movement. There they were, still huddled in the corner, bewildered by their new-found home. Slowly it dawned on me that the chooks did not know what the perch was for, or the nests.

When the boys were snug in bed I crept down and very gently placed each chook on the perch. It was a bit of an effort at first because they had a very poor sense of balance, but I persisted

and after some time had them all roosted. The next morning they were still there and on the floor underneath them were ten newly laid broken eggs. Not to be easily defeated we took them off the perch and placed them out in the yard part of the pen. All day those chooks sat in one place, not even bothering to move out of the hot sun. In utter desperation I moved them into the shade and went inside to try and concentrate on a soon-due assignment. My mind was not on my work and kept wandering back to the dilemma of the chooks.

That evening I snuck down and put the chooks back on the roost. Not to be outdone, I set the alarm so that I might rise before the sun to help the creatures out of bed and prevent another bout of prescrambled eggs. The picaninny dawn found me gently placing my livestock on the nests I had provided for them. Eureka! Later that morning I was rewarded for my persistence by ten lovely googies. Oh delight of delights – omelettes for breakfast, a good square meal at last.

A week passed and the eggs were rolling in, matched only by the bags under my eyes through lack of sleep. I was gaining the nutrients but losing precious sleep. It was not my nodding off in lectures that bothered me, but the rude interruptions by other stu-




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dents when my snoring threatened to drown out the lecturer. Another method of teaching my chooks to cope with their general understanding of the duties of the common uncaged chook had to be found.

Help sometimes arrives from the most unusual quarters, and the next weekend help arrived in the form of two bantams, aptly named Jo and Flo. My sons had been able to relieve some folk who were leaving the district of the burden of finding a home for their precious charges. The presence of these two lively birds breathed new life into the pen. Jo strutted about full of self-importance, while Flo hovered nervously in the background vigorously scratching, and clucking boastfully at the hoardes of bounty she unearthed. The chooks stared in amazement at this strange behavior by their fellow beings.

After about an hour one of the hens attempted to emulate the behavior of the ever-busy Flo. Clumsily, she flopped about trying to scratch with her overlong talons and unearth her own treasures. One by one her mates attempted similar feats. It looked like I would imagine a town drunks' circus to look: much falling over, plenty of loud uncoordinated noise and very little achieved, but it was a start.

About a month had passed, eggs and sleep had become a common occurrence and we were able to sell or swap the eggs and gain other much-needed items for the table. The chooks filled out and gained a full set of feathers with real feet to match. If I must say so myself they looked pretty smart.

That was quite a while ago now and much water has passed under the bridge, but the experience lay hidden under the loads of hay in my memory until a similar experience was to unearth them once more.

I was forced to live in similar surroundings to the once-caged chooks where people were indifferent to those around them. My first reaction was to condemn my fellow creatures for their lack of feeling and understanding. It was then that I remembered the chooks that couldn't scratch or roost. Maybe someone needed to show them what it was like to love and care for each other. We take it for granted that we all know what love is, but unless we see or experience it in action it is as foreign to us as roosting is to battery hens.

MAKE YOUR OWN SOIL

by Bob Rankin, Narrabeen, NSW.

Fifty years of vegetable gardening, mainly in the tropics, have convinced me of the value of composting and organic gardening, but on occasion something more is needed.

What do you do if you have no access to compost and want to start a vegetable garden, but the soil is so poor that nothing grows? The answer is simple – make your own soil. I first tried this in Samoa and was amazed at the yields and quality of vegetables I raised – tomatoes planted only 15 centimetres apart, with loads of perfect succulent fruit; cabbage, silver beet and sweet corn as good as or better than I had ever grown in the past.

I remembered this experience when, twenty years later, I came to Narrabeen, one of the northern beach areas of Sydney. The soil looked terrible – sand and limestone rock. If I wanted home-grown vegetables I had two options – truck in compost and topsoil, or make my own soil. I couldn't afford to truck in decent soil, so I went ahead and made my own.

I marked out a strip along the fence, a metre wide and 10 metres long and started digging down at one end with a pick and shovel. The sand was easy digging and I went along digging out the strip to about 20 centimetres down. I boarded off the lawn side of the excavation with some old timber, raising the bed about 8 centimetres above the surface. As I moved along the trench I filled the bed

with my new soil using the sand I had dug out. The new soil mixture was:

- 6 shovels sand
- 3 shovels untreated sawdust (\$5 a large bag)
- 1/4 shovel banana special fertiliser (\$26 for 25 kg)
- 1/8 shovel lime (\$10 for 10 kg)
- 1/4 tsp essential minerals (\$5 packet)

The ingredients were thoroughly combined and wet till the mixture held its shape in the hand.

I used two bags of sawdust, about half the fertiliser, and about five kilograms lime for 85 square metres, so I reckon you could make a top-producing 175 square metre vegetable garden for about \$45.

It being the middle of winter, I planted lettuce, cabbage, cauliflower, silver beet, celery and onions, which I bought as seedlings from the nursery. I planted tomatoes in an inside seedbox ready for planting when the weather warmed up.

One bonus from making your own soil is that it is weed free and, since no one in the neighbourhood bothers growing their own vegetables because the soil is so poor, the area is remarkably pest free. As a result, every seedling, except for three lettuce and a cauliflower trampled by the cat and playful grandchildren, is doing beautifully. So don't give up – if you want to live healthily, but haven't got the soil to grow your vegetables go ahead and make your own.

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THE SAWDUST SOLUTION

by Neville Jackson, Valhalla.

The composite of powder and fragments of wood produced when timber is sawn has long been considered a waste problem. In the past, being difficult to burn cleanly or dispose of cheaply, sawdust was left in unsightly piles at the mills. Sawdust can be a hazard in many ways; it's highly dangerous for children to burrow into because of the possibility of collapsed 'cubbyholes', and could be an environmental and road-smoke risk if the heap were to spontaneously ignite. However, there are ways now to utilise this product in a responsible manner. The following are just some of these options.

MULTIPLE USES

Weed Suppression

For years sawdust has been laid between strawberry rows to suppress weeds and conserve moisture. I use this method to protect crops such as grapes, tomatoes and rhubarb from crawling pests and reduce watering to a minimum.

Composting

At some recycling centres it is mixed

with vegetation trimmings and grass cuttings to reduce the water content and aid in breakdown to a compost material.

Worm Food

Some sewerage farms use sawdust mixed with partially dried solids to form a feedstock for worm farms. The sawdust imparts a crumbly texture and reduces insects and odour.

Odour Elimination

Sawdust can be used instead of chemicals in pan toilets to eliminate odours and flies. Ashes, on the other hand, should not be used for they react and produce noxious ammonia gas.

Pottery

For centuries, Chinese and Japanese potters have employed sawdust to impart distinctive orange/black burn patterns on their wares. Nowadays, folk potters use a perforated metal drum which stands on three bricks. A wooden rod, similar to a broom handle, is placed vertically and centrally in the drum. Sawdust is placed under and between each piece of 'green ware' to separate.

When the drum is filled the wooden rod is carefully removed. This cavity provides an air supply/chimney for the sawdust to burn. A small fire is laid between the bricks under the centre of the drum so that flames pass through holes in the drum and ignite the sawdust. Once the sawdust is smouldering the starter fire is allowed to go out. The drum's contents will smoulder for some time, dependent upon the number and size of the perforations.

Insulation

To make insulation panels for my tropical (and daylight-unusable) garden shed, I made rectangular open wooden frames, 0.5 x 1.0 m. The frames were placed on a flat level surface, then I dissolved a cup of alum (aluminium and potassium sulphate) and a tablespoon of borax (hydrated sodium tetraborate) in water. This was added to a barrow of sawdust and cement powder in the ratio of 10 to 1 cement. After further dampening and mixing, the barrow contents were tamped into the frame and levelled off.



Old cardboard boxes, laid on bare ground and well covered with sawdust to make a soft path. Not recommended for use close to timber structures as it could encourage termite activity.

When dried, the panels were used as wall insulation, held in place by wood-en strips. The alum and borax is to reduce any fire hazard and insect pests respectively.

Note: both are poisonous and all care should be taken.

Paths and Drives

Cardboard boxes opened out and laid to completely cover ground will suppress weeds if 20 cm of sawdust is laid upon them. I use this method for weed-free pathways and drives. Attractive and pleasant to walk upon, the sawdust areas should not be close to timber structures for termites enjoy the damp dining. Earthworms also partake underneath, so our paths and drives are topped up each year. As regards bushfire danger, sawdust will burn, but only on the surface which chars and self-extinguishes.

Racetracks

Horse and dog racetracks and exercise yards use large quantities of sawdust. This is also a clean, cheap material for guinea pig, chicken and rabbit bedding, with the soiled sawdust used for garden fertiliser/mulch. This helps workability of clay soils, but remember that fresh sawdust takes nitrogen from the soil to aid the breakdown process. When aged, it will return some back to the soil.

Animal Bedding

Large farm animals in housing or stalls benefit from coarse sawdust as flooring, as it reduces odours, vermin and flies.

Slug Deterrent

I use the 'old cardboard and sawdust cover trick' to create a mini-desert around tasty organic vegetable plots. Any crawling pests, especially snails and slugs, avoid this dry surface that

irritates their bodies.

Shed Flooring

This material proves a serviceable floor in sheds where there are no termites present. First lay down a moisture barrier such as builder's plastic. Mix three parts sawdust to one part cement. Add water to a suitable dampness and tamp down firmly. Seal with a water-based sealant such as Thompsons (\$37 & \$48) per gallon, and polish if desired.

Incense

An aromatic incense or room freshener may be made. Sieve sawdust to obtain a fine fraction. To a tablespoon of sawdust add a tablespoon of suitable spices or herbs. A teaspoon of gum arabic is dissolved in a tablespoon of water. Mix well and shape into cones. Let dry.

To use, place on a metal or enamel dish and light the tip. The cone will smoulder for a considerable time so please ensure that all fire safety precautions are taken.

Spices and herbs may be tested for pleasing aromas by placing a sprinkle on a hot barbecue plate or stove when cooking is finished.

Butcher Shops

Back in the real old days, before prepackaged meats, butcher shops had vanloads of beef and sheep carcasses delivered. These were hung with hooks on steel rails, along the walls, before storage in the coolroom. The floors were covered with sawdust to soak up the blood drippings. It was customary for the kids to play in the sawdust and make damp piles and shapes out of the blooded sawdust. To distract the ankle-biters from this messy occupation, most butchers had a large-mouthed jar of boiled sweets on the counter for the 'nice children'. Ah, the good old days. Never did get me a boiled lolly.

RESPONSIBLE USE

So all in all, sawdust is a much under-used material, usually free for the taking. Sawdust, in some instances, can leach phenols, tannins and perhaps turpen-tines, which should never contaminate waterways or other sensitive sites. However, with responsible usage sawdust can be an attractive, cheap and useful material. Perhaps readers will devise other uses. All will reduce the otherwise expensive disposal options.

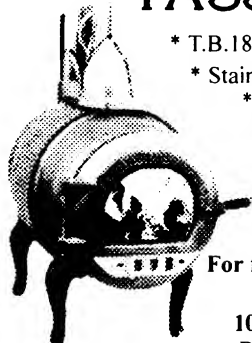
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ENVIRONMENTALLY FRIENDLY CATS

by Helen Easdown, Lower King, WA.

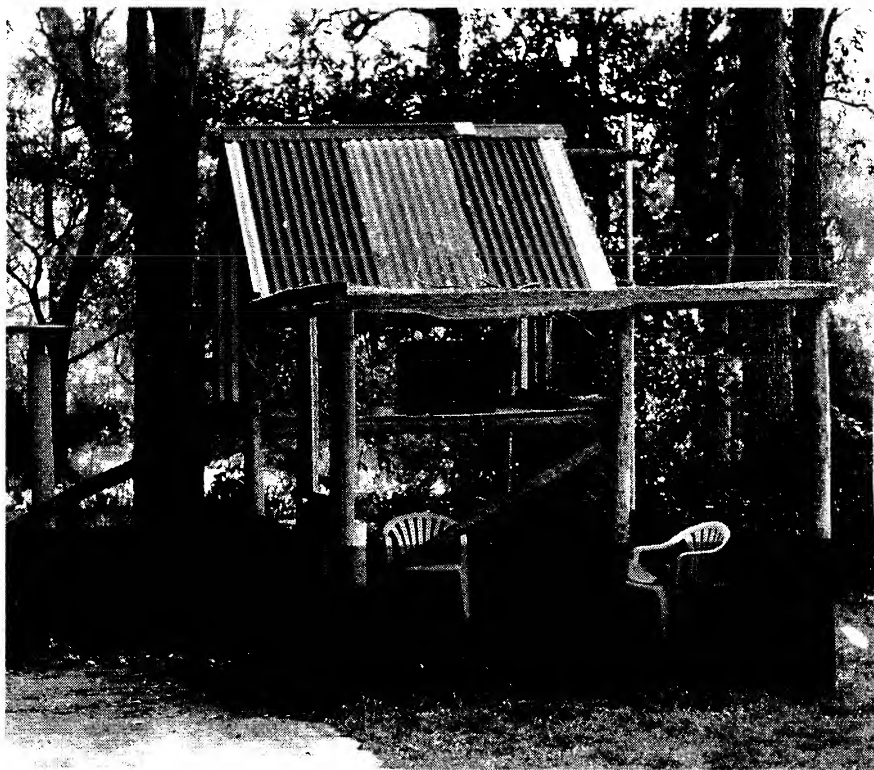
When my husband and I moved from suburban Perth to a small acreage in the south-west coastal city of Albany nearly five years ago, we decided not to let our two Burmese cats free range, even though, at that stage, we had no real idea of how we would achieve an alternative lifestyle for them. Our move to a bush block with its resident native birds and animals created a quandary for us and we had to face the reality of what impact two free-ranging cats could have, not to mention the impact of the local tiger snake and dugite population on our beloved cats!

Although we had curfewed the cats from evening until morning since they were kittens, their life in the city had its fair share of spats with neighbouring cats, near misses with cars, tree climbing rescues, and yes, occasionally a dead bird delivered proudly to our feet.

We decided to build the cats a large pen and picked a spot on the edge of the bush where we could use several existing small trees as posts. We used pine logs for corner posts and star pickets in between where required and enclosed the entire area and roof with chook wire. We used hail mesh to provide (we hoped) a snake-proof barrier one metre high around the pen and pushed up the roof with poles in several places to enable us to stand up inside. The bottom edges of the wire and hail mesh were buried and covered with rocks and soil on both sides. We ended up with a pen approximately 8 x 4 metres that we were confident would provide safety and security for all parties.

Apart from the existing vegetation and trees, we also added various logs and large pieces of fallen timber to provide areas for the cats to walk, jump, sleep, and scratch. On some tree forks, we secured the lids of 200 litre drums which provided ideal sleeping platforms. We also included two drums (facing in opposite directions) to provide a weather-proof area, no matter which way the ever-present wind was blowing.

At the same time, we bought har-



The enclosed cat run keeps the moggies safe and happy and protects local birds and wildlife.

nesses for the cats and they adapted very quickly to walking on leads. Many happy hours were spent wandering through the bush, sniffing logs, climbing trees, or sitting expectantly outside a mouse hole, all with one of us at the other end of the lead.

The cats adapted quite easily to their new lifestyle and generally would spend their daylight hours in the cat run. The only trauma for the cats was the day a flock of black cockatoos landed in the red gums above and proceeded to bombard them with hundreds of gum nuts! The only negative feature for us was the fact that the cats did not have access to their run from the house. If they wanted to go out, we had to take them out, and, cats being cats, you can be assured that once they were out, they wanted to be in, and vice versa!

Twelve months ago, we moved closer to town on to a one-acre block, and

again, our first priority was to construct a new cat pen. As luck would have it, the house we bought had a run-down cubby house which we used as the basis for the new cat pen. We also enclosed a small pergola area outside the sewing room and put a cat door in the window so the cats could have access to outside (and their litter tray) during the night.

Gone are the days when we worried constantly about whether the cats would survive another day in a busy street, gone are unscheduled trips to the vet, gone are concerns about the demise of any wildlife at the paws of our cats. Instead, we have two contented cats that live a trouble-free existence and that now generally only visit the vet once a year for their annual injections. They have suffered no ill effects from their 'battery cat' lifestyle and we are happy knowing we are making life a little easier and safer for our local wildlife and birds.

LIQUID MANURE ON A SMALL SCALE

by Quentin Jones, Heathfield, SA.

Some plants, especially those weeds with hard-setting seeds, ought not be composted. These plants can be put to use making liquid compost. On Nirvana Farm we use 200 litre plastic vats, usually bought from a salvage yard. We also use cheap plastic laundry baskets as simple strainers. These fit neatly inside most vats. Near the bottom of the vat a hole is drilled to accommodate a 25 mm PVC fitting and a tap.

Fill the basket with compostible material, and biodynamic preps if desired, top up with water and allow to brew up for a couple of weeks. This is mostly anaerobic digestion. The fluid is then drained off and reticulated through a flow-form for a period of time. We use a 'Mono' septic tank pump. It is rated at 20 litres/minute and, being soft drive, will take some trash

in the liquid. This process adds heaps of oxygen to the liquid as well as earth and cosmic forces. The oxygen is essential for aerobic digestion. The liquid is pumped back into the vat and the process repeated at roughly weekly intervals. When the compost is completely digested and ready for use it can be diluted and pumped into suitable spray equipment or transferred neat into our fertiliser injector for the irrigation system.

The injector system also uses a plastic vat but it must be sealable. Two 19 mm poly fittings are fitted to the tank. On the main irrigation line, which is 40 mm B-class poly, there are bolted off-the-shelf saddles to attach the 19 mm poly coming from the injector vat. Before the second saddle is bolted in place, wind a few layers (not many) of masking tape around

the pipe under the saddle. When the saddle is bolted up, it will crush the main line a fraction, creating a venturi to pull the manure concentrate from the injector vat. Complete dilution takes our system about 12 hours. There is a simple nylon screen filter in line to protect the solenoids and sprinklers. This filter needs cleaning after each fertilising.

Nirvana Farm has four digesters in line. This enables us to have different brews ranging from weeds or animal wastes to specialised brews with nettles or other biodynamic desirables to remedy deficiencies.

We had no joy obtaining flow-forms so we commissioned a local potter, who produced a set made from terracotta which matched our system and performs perfectly.

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ALUMINIUM IN BAKING POWDER

by Elaine Williams, Pomona, Qld.

It is well documented that aluminium poses a potentially serious health risk when consumed. While much aluminium (possibly up to 95 percent) will pass through the body without being absorbed, some aluminium accumulates in vital areas of the body such as bones, brain and blood. Effects of accumulation over time are reported to result in a variety of chronic conditions such as skeletal degradation, Alzheimer's disease and anaemia. It is worrying to note that aluminium is found in a surprising range of products we consume and use.

Two of the common sources that most people are familiar with and conscientiously avoid are aluminium-based deodorants and cookware. Other common sources that are less well documented include:

- reconstituted orange juice,
- baby formulas,
- icing sugar,
- table salt,
- beverage whiteners (especially that found in coffee machines),
- antacids,
- aspirin,

- tea leaves,
- some soy products,
- talcum powder,
- town water supplies,
- rainwater affected by acid rain or treated with alum as a 'cleaning' agent,
- breast milk.

(It should be noted, however, that aluminium was primarily found in breast milk where contamination from deodorant and/or talcum powder etc was apparent.)

Most of the products mentioned above contain aluminium only as a direct



Bicarb (baking) soda, arrowroot and cream of tartar can be made into a substitute for baking powder containing aluminium.

result of manufacture and/or processing. Commonly, the aluminium compounds added to the powder-type products are aluminium sodium silicate or aluminium calcium silicate. The sole purpose of these compounds in these products is to act as an anticaking agent. Anticaking agents are meant to do just that – allow the product to pour easily and to help prevent it from setting like a rock.

Aluminum sulphate (alum) is added to town water supplies by some municipal water departments to remove fine particles, colour and bacteria. It is also found naturally in some water sources. Municipal water supplies are usually maintained to a slightly alkaline condition (pH between 7 and 8). In alkaline conditions aluminum precipitates as fine solid particles, which are then usually filtered out by sand filters. However, sand filters may not be acceptably efficient for very small particles (4 to 5 microns) and so fine particles may slip through.

Unfortunately, it is beyond the scope of a brief article to cover all the uses of aluminium in food, brand comparison and acceptable/expected levels found in various products. The main focus of this article is on the aluminium compound used in baking powder and consequently some bakery/flour products.

BAKING POWDER

Baking powder (and consequently products that contain baking powder) commonly contains an ingredient called a 'phosphate aerator'. In some products this equates to additive number 541. At first glance in the kitchen cupboard or on the supermarket shelves, this harmless sounding ingredient (or simple number) gives no clue that it may in fact be a compound of aluminium. Sodium aluminium phosphate (acidic) is the compound labeled 'additive number 541' and is prepared from high-purity phosphoric acid.

Some reports have estimated that regular commercial baking powder may be 7 to 11 percent aluminium. Toxicological committees have maintained an interest in sodium aluminium phosphate because of its aluminium content. Such committees have established evidence that supports the claim that accumulation of aluminium in the cells of the nervous system may be toxic, responsible for senile dementia, Parkinson's disease and other similar diseases. It has also been found that

high levels of aluminium can compromise the metabolism of phosphorus, calcium or fluoride and may contribute to skeletal abnormalities.

Common sense would indicate that ceasing the practice of adding aluminium compounds to foodstuffs would be a very good idea, and fortunately there does seem to be some trend toward this. There are apparently brands of baking powder and related products that do not include deliberate addition of aluminium. The only difficulty is finding them. Some manufacturers (Uncle Tobys/White Wings, for example) indicated that they did in fact manufacture an aluminium-free baking powder, though I found that it was not readily available in my area.

A company called Ward McKenzie manufactures Wards Baking Powder which is aluminium free and readily available. The acid component of their product is additive 450 (sodium acid pyrophosphate), an essential nutrient found in blood, bones and teeth. Phosphate in general is necessary for the internal processing of protein and fat and the efficient uptake of vitamin B. This particular compound is harmless when consumed in normal quantities and is most beneficial when it is in balance with calcium. Excessive phosphate consumption may be responsible for kidney stones, but it is unlikely that an individual could consume enough phosphate via baking powder for this to become an issue. It would certainly appear to be a desirable alternative to an aluminium phosphate. If you would like to know where to obtain this additive alone, or Wards Baking Powder in your area, the Ward McKenzie customer service number is 03-9398-4011.



Health foods stores are also a good bet in the search for aluminium-free products. Most health food shops that I visited either had aluminium-free baking powder in stock or were happy to get it. Alternatively, to avoid searching the shops, the following recipe for aluminium-free baking powder is definitely worth trying. I have been using it for

some time now with good results.

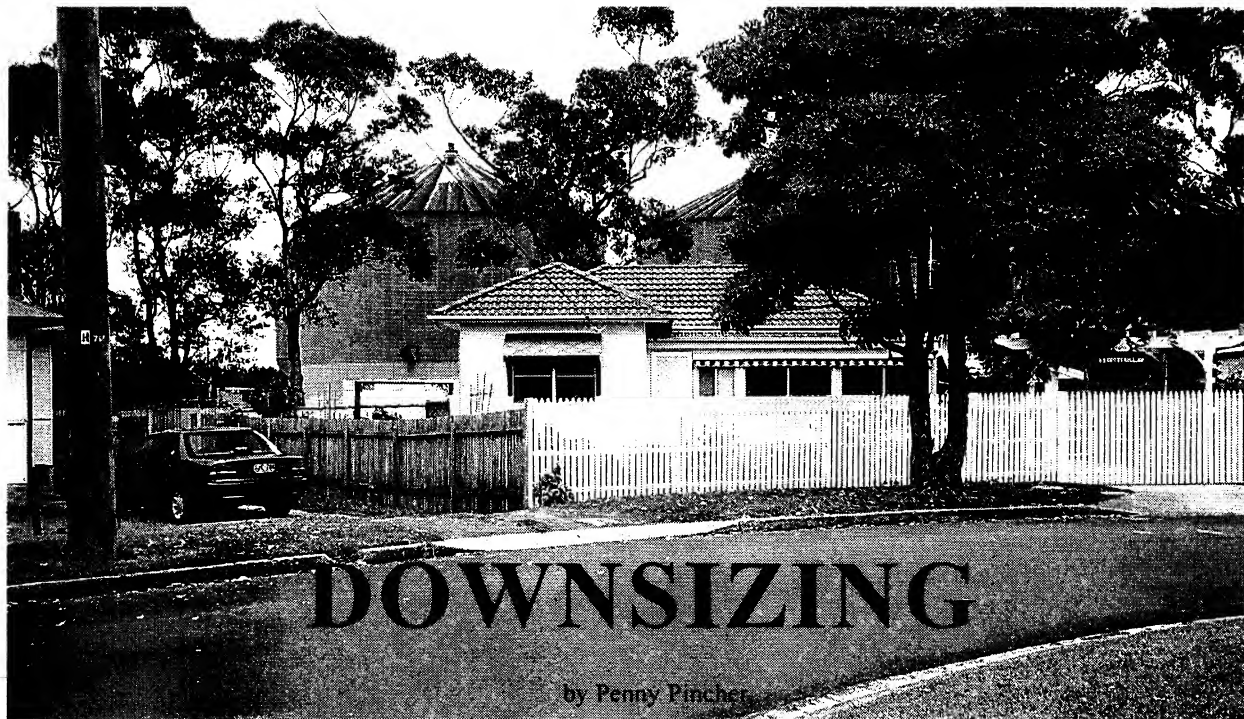
- 2 parts cream of tartar (acid component)
- 1 part baking soda (alkaline component)
- 1 part arrowroot flour (starch component)

Place ingredients in an airtight container. I use a honey bottle. Shake well to mix. Rice flour may be substituted as the starch component if preferred. Use in similar quantities as recommended for commercial baking powder (2 teaspoons per cup of plain flour).

Cream of tartar (potassium acid tartrate) is a natural byproduct of wine making, being a major part of the sediment left over. Acid salts such as cream of tartar are excreted readily by healthy kidneys, though consumption of this compound may be a consideration for people with impaired kidney or liver function. Baking soda is the common name given to sodium bicarbonate. Arrowroot flour is the powdered starchy rhizome of *Maranta arundinacea* (arrowroot plant). Baking soda and arrowroot are apparently quite safe to consume under normal circumstances in normal quantities, as no reports to the contrary could be found.

You may wonder why companies that manufacture products for human consumption persist in including additive 541. It would seem that with the increasing popularity of litigation, knowingly using a toxic compound in this way would be too risky. As 541 is also regarded as an anticaking agent, omitting it from products manufactured in powder form may possibly render these products unsalable and therefore be financially unacceptable. Aside from financial considerations, surely there would be no other reason to continue this practice. The companies may see this as a risk worth taking rather than taking a chance on losing market share trying to sell a product that settles on supermarket shelves into a solid lump.

What legal implications might also apply to manufacturers down the chain who use questionable products supplied by a wholesaler? An example would be the local bakery that buys their raw ingredients (such as baking powder and pre-mixes containing it) in good faith and resells as a finished product. The consumer in turn buys and consumes the product in good faith. As consumers, we can only hope that manufacturers of products that contain aluminium and its compounds are not only aware of possible future health issues, but are seeking to remedy this situation.



When I retired in 1989 after 40 years in the workforce I assumed that I would have no financial worries for the rest of my life – not so. I soon found I was spending more than my income and drawing on savings which should have been earning interest. Then my council rates rose from \$800 to \$1000 in one year; green slips were introduced and gradually rose from \$100 in the first year to \$400+. I realised that I would soon have no money left, be unable to pay anyone to maintain the house and garden and physically unable to do either myself.

A lot of elderly people find themselves in my situation – asset rich, cash poor – the biggest asset being our homes, but the homes are usually old and in constant need of maintenance. White goods like refrigerators, washing machines, hot water services and stoves, are old and often need to be replaced when parts are no longer available. Those ‘clever dicks’ engaged in manufacturing post-World War II realised that things which lasted a lifetime were not profitable, so they introduced ‘inbuilt obsolescence’ which means that a fridge or a car wears out in a short time, and people then have to go out and buy another one. The garden also needed constant maintenance and while I was still able to do this myself I knew that would change with decreased mobility. Often the vehicle is the first cutback an elderly person makes, for they can no longer afford to keep it on the road and

are unable to buy a new one. Fortunately, I purchased a low-mileage vehicle in 1989 when I retired and it should see me out.

There I was with my three pets, living comfortably in my old house with its stunning views, on half an acre of prize-winning garden which I didn’t want to leave, but *poverty was a real possibility* and this was no time for nostalgia.

An old yoga saying – ‘When the student is ready the teacher appears!’ – was true for me. I read an article about voluntary simplicity, also known as ‘downsizing’, and wondered why I hadn’t thought of it myself. Just to prove a point, I looked around to see who I knew who might have downsized, someone who lived simply without deprivation, and utilised their extra time in a useful and rewarding way. There were excellent examples right under my nose:

- Jo and Ja have a small house on the south coast of NSW where they live during the summer months. Come Mother’s Day they say goodbye to their children and grandkids, pack their personal effects, and drive to Far North Queensland where they spend the winter. Their Queensland tenants move into a caravan park for those four months. Jo works three days a week as a taxi driver and Ja does valuable and rewarding voluntary work for the Cancer Council.

- Then there are H and B. H is an MD (doctor of medicine) and works part time

as a locum (relieving while other doctors are on holidays or at seminars) and B is an academic who also works part time. Both are community orientated, belong to a LETSystem, and do valuable work for Aboriginal health and reconciliation.

- A and N moved from Sydney 30 years ago to a burnt-out five-acre block in a small fruit growing community where they established a mixed farm: orchard, chooks, ducks, goats, vegetable garden. They even have a huge area of native heath and a garden of flowering shrubs and trees. They soon realised they were not going to make a living selling organic produce, free range eggs and goats’ milk, so N got a part-time job in a local hospital. Once they reached pension age their worries were over. A says she is going to stay there ‘forever’. They have more visitors than anyone I know. Their voluntary work is friendship, compassion, and a sympathetic ear to all those who visit. A charity working in welfare is welcome to use part of their land to bring troubled and homeless people for orienteering weekends.

- G and D had a stylish lifestyle which included a huge Art Deco apartment in Sydney and a large house in a trendy south coast area. G was in advertising and a few years ago found he was not getting enough work. As both were 50ish and hoped to stop work around 60, they decided to downsize. They sold their large properties and bought two smaller

ones: a small one-bedroom unit as a convenient Sydney base for when they worked late, and a smaller, older brick house in a less trendy hamlet on the coast – and still they have a stylish lifestyle.

The concept of voluntary simplicity, or downsizing, was first documented by Joe Dominguez, a successful financial analyst on Wall Street, who was able to retire aged 33! He and Vicki Robin founded the New Road Map Foundation, in Seattle, USA. It is a volunteer-run, nonprofit organisation that promotes a humane, sustainable future for our world. Their first book *Your Money or Your Life* is dedicated to all of the people who are actively engaged in leaving our planet in better shape than they found it. It should be compulsory reading. As the title indicates, it is not just about money, but about the quality of life, contribution to society, and the effect we have on society and the planet.

However, this is how I put the philosophy of downsizing into practice. First I took stock of my assets – the main one being my home, and this was pivotal to the plot. The old house and its half-acre of prize-winning garden was costing me between \$3000 and \$5000 per annum which included: \$1000+ annual rates; a high insurance premium because it was more than 50 years old and made of wood; constant repairs and maintenance to the old house, fences, sheds; and the garden needed between \$1000 and \$2000 per annum for dolomite, blood and bone, mushroom compost, loads of mulch, plants and occasional heavy labour which I could not do. My basic living expenses were covered by an aged pension, but the extra outlay on the house and garden was eating away my savings, and the labour was more than I could cope with myself, meaning that I was spending more and more time in the garden to the detriment of everything else. The obvious first step was to sell my biggest asset and downsize to something cheaper and easier to manage – a low-maintenance house on a smaller, flatter block of land where I could still have my pets and a garden, and hopefully postpone a knee replacement for another few years.

When I announced that I was selling my house, friends and acquaintances were aghast: How could you leave all this? Easy – I couldn't afford to stay so I was trading my prime real estate for money in the bank and security in my old age, and a simpler, easier, and less

costly lifestyle.

The first step – selling the house – was easy. It sold in the first hour to two young doctors who were unfazed by the unpainted condition of the old house. As one said: 'I have always wanted a garden like this, and the only way I am going to have one is to buy it.'

By the time they settled the purchase I had used up all my savings and *I was \$800 in debt!*

Finding the right house to buy was more difficult, but fortunately the doctors agreed to rent back the house to me for several months until I found something suitable. I know real estate agents can hear, they just don't appear to listen. My requirements were plain enough: a structurally sound house, few or no steps, on a smaller flatter block of land, close to shops and transport, at the right price. After looking at more than 100 houses, I began to despair that I would ever find anything suitable. However, I found a 1950s Housing Department fibro and tile cottage to be auctioned. It was run down, dirty and smelly, but, as the builder said: 'We can get rid of the dirt and the smell. The roof, floor, piers and hardwood frame are all OK.' The location was good.

On 26th July 1997 I took my first step towards a more sustainable future. I bought the old HD house.

The builder gutted the old house. It was rewired, replumbed, insulated and relined; a new kitchen and bathroom were installed; and the pine floorboards were sanded. I moved in on 3rd October 1997. Two verandahs, a tool/potting shed and a garage/studio were added and the outside clad. The driveway, paths and fences were finished around March 1998. Only then could I start making a garden out of a yard of kikuyu grass. In spite of a 'one-in-100-year' flood which washed away half the back garden in August 1998, I won a first prize for a new garden in this zone in September 1998 and in 1999 I won a third prize.

I have everything I need here: a comfortable convenient house only 10 minutes walk to shops and railway station, 10 minutes drive to two other larger shopping centres, and 15 minutes walk to the beach.

While there is money left over from the sale of the other house, I realise that I have overcapitalised on this house, as I expected to spend my declining years here. But nothing is perfect, and I may have to downsize again – though I do

have another option. The 'studio' has its own shower and WC and if needs be I can seek council permission to do B and B.

Meantime, I continue to improve my garden, do my voluntary work, closely monitor local issues, and soon I'll resume writing a local history that I intended to finish when I retired in 1989.

During my working life there was always a job, but the days of full employment are over and younger GR readers should look to their future. Businesses are downsizing too. Big companies announce huge profits, but still retrench employees. No one realised that shorter working hours for people meant that machines which needed no tea breaks, holiday pay or workers' compensation, were replacing people. The carrot that competitiveness makes goods cheaper has fooled all of us. Businesses increase their productivity with fewer workers and more machines, turning out more goods in less time. The goods may be cheaper, but they are often more profitable. It is not just the unskilled workers who are being retrenched; management's ranks are being thinned out as well. Few people now enjoy job security, and no one knows when they are going to be retrenched or offered a golden handshake. No wonder the work ethic is wearing thin, for work now provides workers with fewer real rewards and there are never going to be enough jobs for everyone.

The conspicuous wealth of the 1980s gave way to rethinking of values in the 1990s, and this applies to all walks of life. In this uncertain economic climate it is important that people alter their thinking about accumulating material wealth, and concentrate instead on values and lifestyles that depend less on paid work and money. Reduce, reuse, recycle is for everyone – not just the green movement. Big is not necessarily better. Never mind about keeping up with the the Joneses – they won't be paying the bills.

Recommended Reading

Your Money or Your Life, J Dominguez & V Robin, Penguin, 1993.

Plain and Simple, S Bender, Harper, San Francisco, 1989.

Voluntary Simplicity, Duane Elgin, WM Morrow, New York, 1993.

Simple Living: One Couple's Search For a Better Life, Viking, NY, 1992.

Living More with Less, D Janzen, Scottsdale, Herald Press, 1980.

Downshifting: Reinventing Success on a Slower Track, A Saltzman, NY, Harper Collins, 1991.

Livestock Health and Management

Information You Need but Haven't Known Where to Ask

If you have queries on any type of livestock send them in and we'll get our panel of experts to research the problem for you. Send them to Livestock Advice Page, Grass Roots, PO Box 117, SEYMOUR 3661.

WILTSHIRE HORN SHEEP

I read in 'Livestock Health and Management', April/May '98, in Grass Roots about a man who has Wiltshire Horn sheep at Maleny. I am fascinated by Old English breeds and I would like to find out about this particular breed.

**Marion Johnson,
MURWILLUMBAH 2484**

We featured an article on this breed in GR107. The breed is unusual in that it sheds its fleece naturally: so doesn't need to be shorn like most other breeds. This makes it attractive to smallholders who have only basic sheep yards. Other features include a lean carcass, multiple lambing, low or nil incidence of fly strike and hard dark hooves. The latter make these sheep suitable for both hard, hilly country and high rainfall areas. More information can be obtained from the Wiltshire Horn Association. C/- Noel Barrett, 'Alkelda', 609 Silver Hill Rd, Glaziers Bay, Tas 7109 or, phone 03-6295-1105.

CHASING HIGHLAND CATTLE

We just love the Scottish Highland cattle and saw some in the UK on a recent visit. Can we get them here in Australia, and are they a good smallholder animal? Is there a group or similar we could get breeder details from as we would like to visit someone and talk about them?

**Don and Nancy Vale,
ALBURY 2640**

These cattle are impressive looking and despite the size of their horns are renown for their easy handling. Those animals that have been allowed to run wild usually settle down and quieten well. Highlands are essentially a beef breed, and are marketed as such, with extra income derived from sale of horns and hide. They are widely dispersed now and so prices are reasonable. Contact the Australian Highland Cattle Society Inc, Royal Showgrounds, Epsom Rd, Ascot Vale 3032, or ph: 03-9281-7444.

CHEMICAL-FREE SHEEP

Please provide information on farming sheep (prime lambs) without chemicals. How can I farm the land so it is free of worms/parasites so it is not necessary to drench or vaccinate? I am currently putting colloidal silver and homoeopathic remedies in the water every day, but am not positive the homoeopathic remedies are working. I am aware of the *Complete Herbal Handbook*, but finances are a bit of a problem, and unless this book specifically covers the care of sheep in some detail I am hesitant to purchase. What herbs can I use instead of drenching. For me 'organic' is the way to go. Please help. Many thanks.

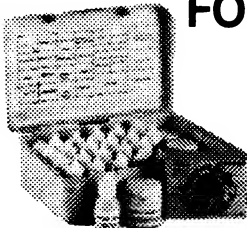
**Marilyn Mangione,
HAMPTON PARK 3976**

Marilyn, the replies to your enquiries could

fill a book and we only have a paragraph in which to answer them. It is essential you consult Pat Coleby's work, either 'Natural Farming and Land Care', or her publication on sheep. As finances are short, ask your local library to get hold of these books on an interlibrary loan. Obviously the first thing to do is get your soil right and then pasture will carry all the required nutrients. Consider too that some animals may be less vigorous than others in the flock or even prone to specific diseases, and these may be better culled and sold so you concentrate on producing from the best specimens. You may also want to maximise the benefits from paddock rotation. First identify parasites troubling your stock and then find out their reproduction cycle. You should aim to break the breeding pattern by drenching sheep and then moving them to clean pasture. Smaller paddocks or the use of electric fencing for strip grazing will facilitate the rotation of the flock and reduce overgrazing as well as the build-up of parasites. Our recommendation is that you approach management wholistically - healthy soil, nutritionally balanced grazing, a mineral lick if required, and using vigorous healthy stock. There is a book that has been published in England called 'Homoeopathy: Shepherds Guide'. Author and publisher are unknown but the book is available from: Smallholder Bookshop, High St, Stoke Ferry, King's Lynn, Norfolk, PE33 6SF, UK, ph/fax: 013-5474-1184, email: edit@smallholder.co.uk



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WIND POWER FOR QUEENSLAND

Plans are under way for Australia's biggest wind farm to be built on the Atherton Tablelands. The project will be managed by the Stanwell Corporation, a company owned by the state government. Initially, 20 turbines generating 12 megawatts of electricity will be installed. Power companies Ergon, Energex and Citipower will be the retailers.

MODERATE OCEAN RISE

The Hobart-based Antarctic Cooperative Research Centre recently predicted that the world's oceans were likely to rise by just seven to eight metres over the next one to two thousand years. The Centre expects greenhouse gas emissions to stabilise in about a hundred years at three times the pre-industrial level. Currently, emissions are one and a half times the pre-industrial level.

Changes in ocean level would be largely as a result of the melting of the ice sheets of Greenland and Antarctica. If completely melted, the Greenland ice sheet would cause a six-metre rise over a period of one to two thousand years. Global warming of a few degrees would trigger this melt-down. The same temperature rise, however, would not melt the much larger Antarctic ice sheet because Antarctic temperatures are generally well below the melting point of ice.

OCEAN POLLUTION

A Canadian biologist studying snails in Halifax Harbour discovered that 100 percent of the female snails he was studying had small penises. This sexual aberration is caused by tributyl tin (TBT), an ingredient of the paint used on ships' hulls. The TBT extends the life of the paint, meaning that ships only need to come in to dry dock for repainting at seven-year intervals rather than every year. TBT is found in every major harbour in Canada, in the Great Lakes, and in the open ocean. It has been implicated in dolphin deaths, and, another form of the same chemical, butyl tin, used in plastic bags, food containers and water pipes, is said to detrimentally affect the human immune system.

HELP FOR NATIVE FISH

Throughout Victoria, catchment management authorities, in association with NRE, are installing fish ladders, also known as fishways, to enable native fish species to move more freely between areas, as they once did before human activities degraded their habitat. In some locations the fish ladders allow fish to swim upstream through weirs to breed. The Broken Creek in the Shepparton Irrigation Area, for example, is an important breeding site for the Murray Cod, now threatened with extinction. There are seven fish ladders on the creek, with another two planned. In another example, this time in the Corangamite area, the fish ladders will improve fish access to critical spawning and habitat areas by facilitating migration of native fish between fresh water and the ocean to complete their life cycle.

The fish ladders are part of a broader environmental improvement programme aimed at rehabilitating wetlands and remnant vegetation. Construction of more fish ladders over the next two years is expected to further promote breeding and rearing opportunities for native fish, essential to ensure their long-term viability, and enable many species to extend their range back into areas in which they were once numerous.



LAND CLEARING

We might gasp in astonishment at figures showing the rate of vegetation clearing in the South American rainforest, but Australia has one of the highest rates of vegetation clearing in the world, with recent panic clearing by many Queensland landholders in

anticipation of tighter state government controls exacerbating this already crucial problem.

A study released last year indicated that across Australia around 309,080 hectares of woody vegetation per year were being cleared for agriculture and development while only 100,000 hectares were being replanted. However, more recent estimates of the devastation occurring in central Queensland put vegetation loss in that region alone, mainly in the brigalow belt, at 300,000 hectares per year. Brigalow scrub is being removed at a frightening pace by means of chains up to 75 metres long being pulled between two bulldozers.

REVEGETATION & BIODIVERSITY

Last year the NSW Government announced the allocation of \$15 million in subsidies to encourage native vegetation projects such as fencing, weed reduction and revegetation. Projects in the Murray region have been awarded funding of \$400,000 to protect and enhance native vegetation. Plant communities to benefit from projects undertaken by many landholders include white, grey and black box, as well as white cypress and river red gum ecosystems.

The Holbrook Landcare Group has funding of \$1.25 million to undertake the largest revegetation project in NSW. This comprehensive project intends to revegetate 2000 ha in the Upper Billabong Catchment. A major aim is to plant sufficient diversity of trees, shrubs and understorey to attract a range of small insect eating birds back to the area in an effort to overcome problems of eucalypt dieback. Seventy percent of trees in the area are affected by dieback, largely because of a lack of birds to eat pest insects.

In the Savernake and Native Dog region, near Albury, a National Heritage Trust project has been awarded \$200,000 to plan and implement a study of how to conserve wildlife and biodiversity in the area while increasing farm productivity. The project will be looking at long-term sustainability for biodiversity conservation and for farming.

FEEDBACK LINK-UP FEEDBACK

Dear Grass Roots,

I picked up your magazine for the first time just a couple of weeks ago and was amazed at what a gold mine I had discovered. It was the first magazine I have read from cover to cover in as long as I can remember.

My husband and I are currently moving around the country with his work, but our goal is to settle in **TOWNSVILLE**, north Queensland. We wish to build a self-sustaining house and combine it with a permaculture garden. If anybody has any info or can suggest any reading material about permaculture in the tropics it would be appreciated.

I would also like to hear from anybody in the Albury/Wodonga area who could introduce me to **BEE KEEPING**, in particular Australian native stingless bees.

**Lisa Hamilton,
25 Sargent Close, BONEGILLA 3693.**

Dear Grass Roots,

Thanks for a great magazine, only discovered it about 12 months ago. I was interested to read Mark Mackay's article in GR 135 about growing giant squash. About 35 - 40 years ago, my dad was growing large white squash about twice the size of the ones in the photo on the back cover of GR. The skins were very soft and edible unless left to overmature. We also grew large marrows (zucchini) up to three years ago when my dad passed away. They grew to about 60 centimetres long and 50 centimetres around and also had soft edible skins, unless overmatured. We only used animal manure as fertiliser. When I first saw the button squash in the shops, I assumed they were the normal large squash picked at an immature stage, as are zucchinis, baby corn etc.

For **PEOPLE WITH ALLERGIES**, two helpful books, if they are still available are:

Wheatless Cooking, by Lynette Coffey, published 1984 by Greenhouse Publications Pty Ltd, 385-387 Bridge Rd, Richmond, Vic (this book also contains gluten-free and sugar-free recipes).

Taste and See, by Penny King, published 1992. Think my sister obtained this book from an Adventist Book Centre. It contains recipes with no meat, dairy products, vinegar, sugar, wheat, baking powder or eggs, and little or no salt or fat.

**Nita Higgins,
PO Box 608, JINDABYNE 2627.**

Dear Readers,

I have recently moved to the mid-north coast of NSW from southern Vic and am looking for GR-type friends in the **PORT MACQUARIE** or surrounding district. I am a nurse and work part time and do a part-time (off-campus) law course. I have a recently-diagnosed-as-diabetic dog and a horse that has become 'fresh meat' for all the local blood-sucking ticks in this area. Any friends in the surrounding area are welcome to ring or write to me as I have very few contacts up here (as yet). I do have an answering machine and would be pleased to return any call or letter as soon as I can.

**Anna Gear,
14a Hart St, PORT MACQUARIE 2444.**



Dear GRs,

Does anyone know how to treat common **GARDEN SNAILS**? I've heard/seen some time ago someone had done a treatment so they were edible. I was very young when we would eat them in Europe. I would love to eat them instead of killing and burying them.

I can help, however, about the wild vegetation. I cook them in boiling water. Plenty of water will make them more palatable then: fry garlic, onions, bacon, ham in olive oil/butter/margarine; cook potatoes, rice and carrots. Put half and half vegies and potato/rice. Mix together. Add salt and pepper to taste. Magnifico.

Sometimes oil, garlic and lemon juice added to fennel is also very nice. Bon-appetit.

**Lucia,
Cato Crt, CABOOLTURE 4510.**

Dear GR,

After reading the article on natural parenting in your last magazine, it inspired me to think of writing an article on **HOME-BIRTH**. Recently I gave a talk to a group of mothers living a GR lifestyle in a small country town. I was shocked to learn many of them had automatically gone to hospital to have their babies. Women over the years have become so totally disempowered in the birth process. Pregnant women are not sick. Birth is a natural life process and should be treated as such, so why go to hospital? Anyone needing more information on homebirth can contact: Homebirth Australia, PO Box 1085, Byron Bay 2481; or contact me. I will write a feature article in the future but this letter will have to suffice for now. Both of my daughters were born at home.

**Andrea Diery,
24 Fantome Rd, CRAIGIE 6025.**

Articles on homebirth were in GRs 74 & 75.

Dear GR & Readers,

I am hoping someone can help me. We have a few acres, run a small flock of sheep for ourselves and raise fat lambs. We are trying to be all organic in everything we do, but I can't find any information on **CHEMICAL-FREE ANIMAL HUSBANDRY**. What are the alternatives to drenching, lice control, footrot control, fly strike and everything else to do with chemicals, for cattle, sheep and horses? Also, where do you find organic chook pellets if there are any?

Can anyone help me on info on **LETS or WOOFERS**? Thanks for any information and a great magazine.

**Sarah Morrison,
'Wynd End', PO Box 25, NARACORTE 5271.**

Pat Coleby's book, 'Natural Farming and Land Care', will help with your animal questions. Available from: Grass Roots Publishing, PO Box 117, Seymour 3661. \$23.45 incl postage. WWOOF can be contacted at: Mt Murrindal Cooperative, Buchan 3885, ph: 03-5155-0218. Contact your local library or shire council to find the LETS nearest to you.

Dear GRs,

Re: **PATENT/MARKETING INFORMATION**: Basically, since writing the *Grass Roots* article (GR 134), almost three years ago, I have left the patent attorney profession and am now working as a psychotherapist. I am thus no longer (technically) qualified to give formal **PATENT ADVICE**. However, if you would like any informal advice, I would be happy to oblige.

**Alastair Duhs,
PO Box 47-515, PONSONBY, AUCKLAND, NZ.
Ph: 0064-9521-5216
Email: alduhs@ihug.co.nz**



Dear GRs,

To K Watson, re native stingless bees: The **AUSTRALIAN NATIVE BEE RESEARCH CENTRE**, PO Box 74, North Richmond 2754, fax: 02-4576-1196, may be a useful contact for information and supply.

To Jane, re **BANANA LEAF**: Please be careful and make sure *any* plant you consider eating has been correctly (by scientific name) identified first. There are a number of species of *Tabernaemontana* (previously *Ervatamia*) in Queensland, known as banana bushes, gondola bushes, canoe bushes, or native gardenias. Perhaps your plant is one of these. They are very ornamental but they are *not* edible, and therefore were not a murri food plant. I cannot emphasise enough the need for accurate identification of plants.

**Lenore Lindsay,
Aust Food Plants Study Group.**

FEEDBACK LINK-UP FEEDBACK

Dear Grass Roots,

For people requesting **NO-SOAP CLEANERS** for the whole body: Use rice bran mixed to a paste with very warm water as a light scrub and rinse it off. You find it near the oats in the supermarket.

With regard to the enquiry about waterglass (sodium silicate): it's used by potters, so a pottery supplier would have it. It's also used in cardboard box manufacturing, I think as a glue.

Rose Baumholzer.

Dear Readers,

I am after a **BACK COPY OF GR 13**. Can anyone help?

Dianne,

Ph: 03-9553-2272.

Dear GRs,

Has anyone else noticed the insipid flavours of desiccated coconut and coconut milk recently? What has happened to the **TASTE OF COCONUT?** I would appreciate any information from GR people about production of these items.

Lena Williams,

C/- R Grove, 29/53 Warry St, SPRING HILL 4000.

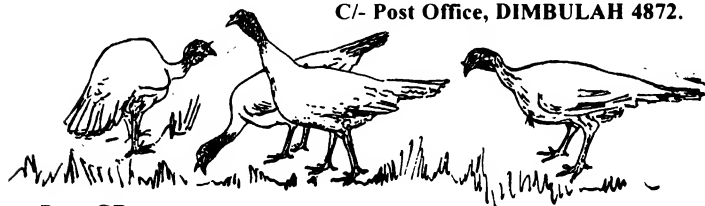
Dear Grass Roots,

Hi! I'm looking for recipes for **WORCESTER SAUCE** using tamarinds. Tracey Brown (Tucker St) my letter was returned. Did you get any recipes for hair removal?

Anyone who wants to **TALK TURKEY** (backyard breeding), please write. This is my second year and I would love to talk to others doing this.

Liz Bishop,

C/- Post Office, DIMBULAH 4872.



Dear GR,

We are a family of three, recently moved to near Glenreagh. We are looking for other families who are **HOME SCHOOLING** or interested in home schooling in the **GRAFTON, COFFS HARBOUR, BELLINGEN** area. Please write.

Jenny English,

Morning Star, GLENREAGH 2450.

Dear GRs,

The Denmark Environment Centre is concerned with **PRESERVING THE FORESTS** of south-west Western Australia and invites all interested readers to contact us for more information on this vital environmental issue.

**Denmark Environment Centre,
25 Strickland, DENMARK 6333.**

Dear Grass Roots,

In GR 136, in a letter from Margit, a 'feelgood' **AROMATHERAPY BURNER TREAT** was mentioned. These things are not for all. An allergy patient like myself can have a bad reaction to these things – oil fumes are not good unless going up an enclosed chimney where they can't be inhaled. I was attending a skin specialist last winter and was badly affected by hers! Unfortunately, I didn't detect the smell until the third visit and was suffering badly for the rest of winter because of the first two visits. Since people started burning scented candles and oils, I read that there has been a 150 percent increase in fires caused by these things. Unfortunately, people just aren't aware of both types of danger. I hope this letter may give food for thought.

Megan Cooke,

PO Box 124, CESSNOCK 2325.

Dear GR,

To John Danecki (GR 127), who wanted growing info on **ORIENTAL MUSHROOMS**. I once owned a book called *Grow Your Own Chinese Vegetables*, by Geri Harrington, Garden Way Publishing, Pownal, Vermont, 05261, USA. ISBN 0-88266-369-0. It may contain what you're after, but as I lent the book (and, well you've guessed the rest) I can't be sure what it contains any more.



**Roberto,
Lot 4, ARRAWARRA BEACH 2456.**



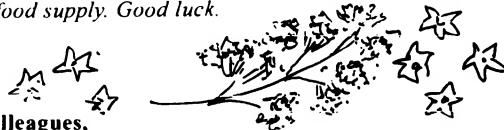
Dear Readers,

Twelve months ago we bought our piece of paradise – five acres on the edge of a large town water supply holding dam. We have abundant bird life on the dam. Also we also have insects. Commonly known as **GNATS** or nonbiting midges – family name *Chironomidae*. They breed in the dam and descend on us in the hundreds of thousands. They are attracted to the house lights. We have replaced all of our screens with 'tent X' (very fine mesh). This keeps them out of the house, but makes outdoor entertaining impossible. I have done some research, but to no avail. CSIRO are unable to help – seems that it's a worldwide problem. We have planted neem trees in the hope they may help. I was wondering if any GR readers can help. Has anybody been successful in controlling these insects? Any help would be greatly appreciated.

Heather Foran,

4 Purli Rd, NAMBOUR 4560.

Heather, you will never get rid of the gnats entirely, and it would be undesirable to do so, as they are part of the food chain. Over time, however, it is possible to reduce their numbers to a (humanly) bearable level. First, plant a variety of shrubs and trees, including indigenous species, to provide food and habitat for small birds which will dine on gnats. Second, ensure you have a year-round supply of plants in flower (alyssum, erigeron, daisies, Queen Anne's lace, borage, diosma, thryptomene etc etc) to provide nectar and pollen for a variety of predatory insects, for which gnats will also become a food supply. Good luck.



Hi GR Colleagues,

Some folk urgently need a little **BASIC PHYSICS**, as John Caldwell's GR 136 letter shows, because air resistance, string friction, plus attempts to withdraw power, all reduce that swinging amplitude of his Foucault Pendulum until soon it stops. Gravity is merely a conserving energy – what goes up must come down, if you let it, as with water evaporation upwards by solar energy, then downwards by rain and further down for hydroelectricity. Ultimately, energywise, there are no free meals. Well, how many perpetual motion engines do you see? Or cars truly running on just water?

Dr Patrick ffyske Howden,

Cone St, MACLEAY ISLAND 4184.

Tel/Fax: 07-3409-5100.

Dear GR Readers,

Thank you for your great magazine. I mentioned it to a couple in Holland and they were very interested in its basic philosophy. Although I had thought that the Dutch used their land according to the best values of your magazine anyway. I would appreciate very much if someone could send me a **PATTERN FOR A BANANAS-IN-PYJAMAS JUMPER** for a very small boy, just the Bananas would do. I will acknowledge all replies and pay postage.

Patricia St Lawrence,

'Colbe's', New England Hwy, MURRURUNDI 2338.

FEEDBACK LINK-UP FEEDBACK

Dear GR Folk,

'On leafing through Feedback in GR 136, I have noticed several readers requesting **INFORMATION OR HELP** on topics that also interest me. Most of these would probably interest many other readers and I am sure it would be of benefit to everyone if the answers could be printed in these pages. First, I'll mention those to which I would like an answer, then I'll try to provide an answer to another question myself.

Margit from Coolamon would like, amongst other things, a recipe for beeswax and linseed furniture polish. So would I.

Jeanette Shavin is after a table-top (sink-top, perhaps?) hand-operated washing machine. For a while, I think 'Innovations' sold one by mail order, but I have not seen it in any of their catalogues for some time. I would also like to know where one can be purchased now.

Along with A Hoschke, I would like a recipe for a vegetarian meat pie. In WA, years ago, you could buy a vegetarian pie, all vegies, but with a flavourful sauce (sort of like white sauce) which was very tasty. Not exactly meaty, but very nice. I've never had one like it in the eastern states, but perhaps someone out there has a good recipe they could share with us all.

Mr A Neumann from Valley View (and I) would like to know where to buy paulownias at a reasonable price. And, finally, Linda Moore is obviously having the same trouble with her dam as I am - getting water filled with clay particles to clear without using chemicals. Can anyone help all of us with this problem? Plus all the others?

Also, to Mr A Neumann; 'Tassie Barrels' advertise their stainless steel slow-combustion wood heater in *Owner Builder*. I don't know whether this is what you are after, but you can ring them at all hours on 03-6496-1589, or send an SAE to Tassie Barrels, PO Box 87, Railton, 7305 for more info.

On another note, **HAVING MOVED A HOUSE** from one location to another, I can tell Kirsten Green that it is generally a worthwhile way to go, as long as you don't have to spend too much on the house or the new land. It also depends on where you want to move to, as many councils (in the city anyway) don't want to have anything to do with relocating a house. It might be better in the country, but you need to check out the attitudes of the council(s) in the area(s) you are contemplating before buying a block. (I was knocked back by eight or nine councils before being welcomed with, 'We'd love to have you!' by the last.) Do the math first before committing yourself, and get it all down on paper too.

The actual moving and putting back together depends on the size of the house, which must 'fit' the roads it is to travel on and the truck that will carry it. Mine was cut in half right down the middle, after the tiles on the roof were removed, most of which were broken in the process, the doors and windows along the 'cut' removed, the verandahs removed and all the services cut off. (Make sure the gas is cut off, or you could be in strife!) The house, in two parts, was moved on to new stumps with about half a centimetre between the two halves.

The new council stipulated new wiring and plumbing, necessary in a house more than 50 years old, and brick veneering so it would fit in with other houses in the area, so new roof tiles were chosen to match the new bricks. Inside, the cut-through parts were replastered, though the builder had to replace all the ceilings, because it rained for weeks before he could get the roof back on and all the old ones fell in; the wiring and plumbing were done, including putting in a new shower and an inside toilet and a solar HWS; and we just had to repaint and put new floor coverings down.

Some expense was incurred in having to buy a new gas stove and heater (to replace the wood stove, and fireplace in lounge) and filling the gap where another fireplace had been, as all the chimneys had to be removed. We insulated all through, and the work took three months or so, meaning we had to find other accommodation. It cost (30 years ago) \$10,000 or so, but it is cheaper than almost every other alternative, except perhaps building a muddy! Looking back, there are some things I might have done a lot dif-

ferently, but half your life is filled with 'what if's', isn't it? It was certainly a learning experience.

Jenny Lacey,

55 Gorry Rd, RED LION, via TALBOT 3371.

Dear Grass Roots,

Thanks for a great magazine! We want to build a **FLOATING ISLAND** for our dam, but have not found any information as to how. Could anyone help us or have you had an article in the past about this subject?

J Gorick,

McInnes Rd, TYNONG NORTH 3813.

Dear Mums,

I wish to dispel any fears that some mums may have after reading Sandy Hudson's article about natural parenting (GR 135). Well, being a little older than Sandy and having raised two boys (now 21 and 18), I can provide some comfort to those of you that haven't gone in for quite such 'natural' parenting. My sons are now at university, one studying to be a doctor and the other to be an engineer. They are healthy (neither have had medical treatment for years), polite, thoughtful, politically and environmentally aware. I couldn't have wished for a better outcome (OK, OK, I am a bit biased). They were not 'born at home', they were not 'breast-fed till they decided they'd had enough' (I decided I'd had enough), they had every childhood disease and injection going. I did not hold back with the odd slap. They went to a childminder, playschool, after school care, and holiday programmes. I was able to take my sons anywhere and not be nervous that they would break something or cause a nuisance to others. This is obviously not 'natural', however, the results are pretty pleasing nonetheless! (so far).

PS: I think your magazine is great - I wish we had discovered it earlier, but then we've only been in Australia for 10 years.

Liz Haywood,

18 Delmont St, WERRIBEE 3030.

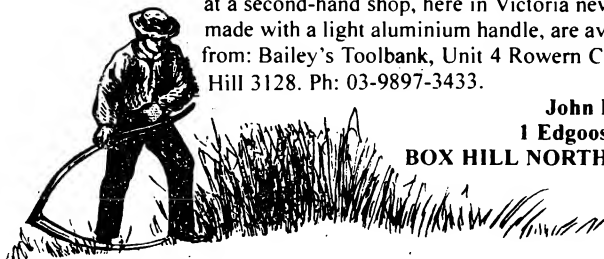
Dear Megg and Fellow GRs,

Sue of Oak Valley wants a **SCYTHE**. If you can't find an old one at a second-hand shop, here in Victoria new ones, made with a light aluminium handle, are available from: Bailey's Toolbank, Unit 4 Rowern Crt, Box Hill 3128. Ph: 03-9897-3433.

John Elliott,

1 Edgoose Ave,

BOX HILL NORTH 3129.



Dear Megg & Readers,

I also can't resist telling everybody about Montes Reef Resort, where, for the price of a motel, you can live right in amongst the reef and islands and enjoy all the pleasures of staying at any of the most exotic Whitsunday resorts. In addition to this, you get to meet some of the many cruising yachties who have done what many of us would like to do. Talking to these wonderful friendly people who anchor here free of charge is also a lovely experience. Some of them have sailed around the world many times, and others are from your own home town. Being invited aboard and poring over the charts of the exotic places they have been and seeing the latest satellite navigation equipment on some is a mind blowing experience.

For those of your readers who have similar tastes to myself, Montes is found at Hideaway Bay just north of Proserpine, and the *Margherita* can be found either there or at Bowen boat harbour.

S Goodman,

WESTWOOD 4702.

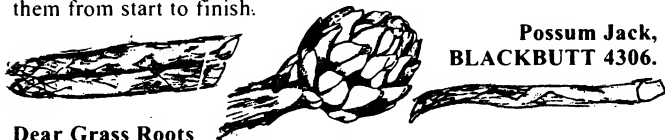
Ph: 07-4934-7625.

FEEDBACK LINK-UP FEEDBACK

Dear GR,

In response to **GYPSY'S LETTER**, Feedback, GR 136: Yes, we are both very happy in ourselves and with each other. How did I do it? It wasn't easy. It took me 45 years to find true happiness and a compatible partner. As soon as we met we knew that we were for each other.

On a less happy note, I was angered to read the article 'Spirit of Misadventure', GR 136, by Margaret Joel. The whole article was supposed to be humorous, but only if you call sarcasm funny. To my mind, it's the lousiest form of wit. The friends of the author offered their home, shared their food, and gave a country holiday, and all the author did was condemn the way they dressed, their home, what they ate, and the way they lived. The friends, without doubt, loved their lifestyle, but all the author could do was rubbish them from start to finish.



Possum Jack,
BLACKBUTT 4306.

Dear Grass Roots

I am compiling a book on **PERENNIAL VEGETABLES** and would like some input from GR readers – with full acknowledgements of course. Does anyone know or grow any unusual perennial vegies? If so, please write and tell me about them. Also, if anyone has any interesting recipes, preserving or storing ideas for these wonderful 'plant once only' crops I would like to hear from you (artichokes, asparagus, chilacoyote etc). I believe there are varieties of 'normal' vegies (like broccoli) that are long-lived, and also annual vegies that can 'perennialise' with certain care. Any and all information would be appreciated greatly – even stories, poems or relevant anecdotes (perhaps some seed if you can spare it). Kind regards to all. I will reply to all letters.

Justine,

22 Burley Rd, YARRAWONGA 3730.

Dear GR Family,

I have finally found time to write again. The last time I wrote, hubbie, myself and two kids, Karleigh and Dylan, had just purchased our 'needs some TLC' house in a smallish country town. Well, after 22 months of TLC it has become a comfortable and functional quarter-acre haven. We have lots of fruit trees, a vegie garden, and my wonderful chickens. Not to mention dogs, cats, guinea pigs, budgies, pigeons, rosellas, a white cockatoo, and our third little angel due early February. The reason I am writing is to get information/feedback from anyone who has had experience in any of the various styles of **HOME SCHOOLING**. Also, I would like to know if anyone can give me info on any LETS systems operating around my area. Anyone who would like to share their stories of family, life etc, please write. In anticipation of your letters, a very big thank you.

Julie Moore,

6 Wallsend St, STANFORD MERTHYR 2327.

Dear GRs,

I am hooked on this mag. Having moved from suburban Brisbane just over two years ago, it's been the best move from city to country. My daughter and I now own our own 27 foot caravan which we live in comfortably (our first home), and have enjoyed watching our first pet chooks grow from chicks to great egg layers; they're part of our family. It's my dream to get closer to a self-sufficient lifestyle each day. I am at the moment learning computers and, after burning some aromatherapy oils as suggested in last issue (136) from Margit, I had this unreal dream that GR was on CD. What an unreal way to look up relevant information.

Anyway guys, the future holds many surprises to life, and there's always our dreams to keep life exciting.

Robyne Westbury,

2 Adams St, BURNETT HEADS 4670.

Dear GR Readers,

Hello to all folks out there, from whom we appear to get an encyclopedia of knowledge. Are there any dear folk who have the knowhow to pickle preserve cloves of garlic? Recently I was given a clove of preserved **PICKLED GARLIC**. It was deliciously mellow to eat and perfectly natural in colour. I do not know whether it was a vinegar or brine solution as the preserving agent. It was a clear fluid. I tried to put down three jars of peeled cloves of garlic. I prepared a preserving agent from white vinegar, boiled with spices of equal quantities of ground ginger, ground cloves, ground allspice, cinnamon and Chinese five spices. Boiled for ten minutes then strained through four thicknesses of white cotton material. I bottled the garlic with the hot spiced and strained vinegar and sealed. I was told I had done everything correctly, but two days later, the garlic had commenced to turn an aqua blue in places. Please can someone tell me if the garlic is becoming toxic. Is it safe to consume or should I throw it away? What have I done wrong? Please can anyone tell me the best method to safely preserve peeled cloves of garlic, any garlic. The garlic I peeled and tried to preserve was imported, grown in China. Is anyone gracious enough with the experience and knowledge to tell me the correct procedure?

Thank you Megg and Mary for your wonderful publication. I've been an avid reader of it for more than 20 years. I am an eighty-eight year old amputee pensioner, alone now my darling has passed on. I would like to hear from, and correspond with, any folk who may be gracious enough to write to a lonely old man. All letters would be responded to promptly.

Arthur Ferguson,

14 Long Gully Rd, GRANDCHESTER 4340.

GR111 contained an article about preserving food, including garlic, in oil and vinegar.



Dear GR,

I work on a biodynamic organic farm which comprises mainly fruit tree orchards and grapes, however, we suffer a great deal of damage from green parrots (28s) which leave our crops in a great state of decimation. We would appreciate any readers with tried and true **ORGANIC RECIPES OR PRACTICES TO DETER THESE PESTS**, also any remedies for other fruit problems such as curly leaf, fruit fly, etc would be gratefully accepted!

N Winn,

C/- Prema Organics, PO Box 492, NARROGIN 6312.

Dear GR,

To A Hoshke about making a **VEGETARIAN MEAT PIE** (GR 136): It's easy if you use aubergines (eggplant) as a substitute for the meat, and use any meat casserole recipe for the filling. Chop up the aubergine into bite-sized squares, leaving the skin on, and saute in a little olive oil, then proceed with the rest of the recipe. For the stock use Massel Beef Style Vegetable Stock. For a mock chicken pie use potatoes and Massel Chicken Style Vegetable Stock, and/or a recipe for chicken casserole. Hope you like it.

To Maresa Robberts about getting a feijoa plant: Any mail order nursery will get one for you, but if you buy two, the cross-pollination will produce much more fruit. They grow to three metres, so need to be planted three metres apart. Plant in a well-drained sunny position, and it is fairly drought resistant. If you write to: Plum Products, RMB 2907, Bruthen 33885, you may get more information.

Christopher Snowman,

Lot 3 Templeton St, GUILDFORD 3451

Please keep letters brief, clearly written and relevant to self-sufficiency topics. Letters pushing barrows (religious, political or other) will not be published.

FEEDBACK LINK-UP FEEDBACK

Dear GRs,

I have purchased GR (and read every page) for over 10 years now, and always look forward to the next issue. The various tips in Feedback have been most helpful at times. Money savers always draw my attention the most, being a single welfare pensioner now for over 14 years, first on a disability and now the aged (70). I nearly gave up hope in the late 1970s. After having a serious accident at work (no compensation), my spine was badly damaged which resulted in three spinal operations (partial paraplegic). My way of life was drastically altered. It took some time to get my life back together after being so active. I made up my mind though to become a self-sufficient person no matter what, after reading articles in GR. With what little money I had I started looking for somewhere to fit in and make life much brighter than it had been. No way would I find this in the city. After searching for three months I came upon this spot, a quarter-acre block, semi-isolated, but within easy reach of the RBH (outpatient).

Little by little a house was built (two bedrooms), having just my pension it was a long slow job (10 years). This being a rural area (no services, only power), it was hard to obtain tradesmen, but I made it. Using gardening tools meant for ladies, I eventually had a vegetable garden (slow but sure) going. Cannot say I live well, but I'm what's called comfortable, no luxuries whatsoever, yet made myself as self-sufficient as is possible. The main thing lacking now is a partner to share this pleasant situation with. I must say articles I've read from other GR readers, ie those who battled (some with young children) and overcame hurdles, some much worse off than myself, are very good therapy. Makes one say, I'll show them! Life is great when one sees others have coped. There are others out there who have been there and done that; they set the pattern for me to follow.



Richard Wells,

PO Box 128, KILCOY 4515.

Dear Mary,

Hi there, hoping you all had a very happy Christmas and happy New Year, after a very exciting year just gone by. Well I hope the year 2000 is an even better year for everyone. I can answer a few of the questions from the latest issue of GR.

William Hamilton QLD, Rodale Publishers are in Brisbane.

Jeanette Shaven, QLD, Bamix have hand-operated washing machines for table tops.

Kate Gatenby, TAS, extracting oil from olives is done from the seeds, and you need a hydraulic press to get pressure to extract it from them.

Jan Atkinson, VIC, you need a special nail puller for removing those type of nails, very hard to find these days.

Sue Gibson, QLD, scythes are usually found at clearance sales on properties. I have seen them down here lately myself. I suggest you have a look around at various ones in your area.

John Treaghus, the stills required for extracting oil from plants and flowers are available from this phone number: 03-9568-7796. Cost for a Reflux still of five litres is \$299 plus freight.

G Illaman, many books on wine making are available from home brewers shops.

J Calnam, local pet shops have many different books on rabbits. Recipes for diabetic jams have appeared in several back issues of GR (GRs 57,76, & 83).

K Watson, I suggest you contact the Australian Native Stingless Bee Association C/- PO Box 74 G4, Richmond North 2754.

Colin Law,

C/- PO Box 117, SEYMOUR 3661.

Letters are accepted and edited at the discretion of the publishers

Dear Grass Roots,

Enclosed renewal of my subscription. Am enjoying the articles on bee keeping. I hope there will be more. Currently, I am learning on my second hive. I managed to kill off my first through starvation. Being so busy in terror that I didn't recognise the signs. If any readers in the Dandenong Mountain area have a hive and are fearful, they may wish to form a small bee club where we could get together to do bee things and perhaps hire an expert for the occasion. Let me know.

For the writer who wants to purchase PAULOWNIA trees in large quantities: With careful watering and fertilising I have grown two eight year old trees to about 12 metres high and 30 centimetres in diameter. Also, inadvertently, I grew one successfully from seed. The leaves mulch easily. Stock will eat them if trained. They create wonderful shade in summer. The flowers are violet and deliciously fragrant and the bees love them. Those are the good bits.

Last year I bought a tray of one hundred plus seedlings from a grower and had the devil of a time keeping these tasty morsels from everything that moves and eats. Second year now, and I have about one-third of what I started with. For me - these trees do not grow like weeds. Now I am working on getting my own seed to germinate on request.

The grower is: James Lawrence, RMB 6810, Bannaring 3926, ph: 03-5983-5688. I found him very helpful and willing to share his expertise.

Jane Brooks,

30 Woolrich Rd, OLINDA 3788.

Dear GR & Readers,

Thank you for an inspiring and creatively motivated magazine. I really enjoy and appreciate being able to access the wealth of knowledge provided by contributors and readers of GR. I wish that the answers provided to the topical questions in your Feedback section were published too. I think that I'd be writing all weekend if I pursued half of them!

I'd like to know if there are any like-minded people out there who would be interested in JOINT OWNERSHIP of a large enough block of land to enable independent living somewhere on the central coast of NSW. I'm a country and nature enjoying female who seems to be slaving her life away as property prices appear to be getting further out of reach. I don't mind male or female respondents, but would like to pursue a moderately independent lifestyle. I'm interested in native flora and fauna, seem to study too much, have a few well-behaved dogs and run a quiet business from home. If anybody has any ideas either for or against joint ownership, or if anybody is interested in pursuing the same, I would be happy to hear from them. I'll respond to all letters.

Claire,

C/- PO Box 117, SEYMOUR 3661

Dear Grass Roots,

I just had to put pen to paper about ginger beer. Well, I had a craving to taste the ginger beer that I had had many years ago as a girl, so I decided to make a batch (first time). I used the ginger beer plant recipe out of GR 136, and, guess what? It worked! The plant was watched throughout the day for fermentation (bubbling), then we started to feed it! Yuk, it looked terrible, but we continued on. After seven days, we strained it, added the other goodies, then bottled it. (Plastic bottles used, two litre vinegar bottles.) We kept the three bottles in the laundry to keep the temperature constant. (About 25 degrees inside, 35 degrees plus outside. The bottles were felt quite a few times a day because we were told and read that ginger beer usually explodes.

I still could not believe that this lot were going to get gassy. But, as if by magic, the bottles became quite hard to squeeze, so I released the caps gently and the gas, wow. We have done it! The first bottle was drunk at seven days and the second has just gone into the fridge at three weeks. Success. Now I feel quite confident about making ginger beer.

Liz & Ivan Tresidder,
Riverdale Park, COOKERNUP WA.

FEEDBACK LINK-UP FEEDBACK

Dear GRs,

SEWAGE DISPOSAL has always been a big problem in cities and a very big cost to build incinerators, deep sea pipelines, pumping stations, screening and filtering systems and much more. Now that the world's population is more than the number of people who have ever died, and is doubling every 50 years, someone should give the sewage disposal overview some serious thought.

The city of Glasgow, Scotland, has a fleet of old oil tankers constantly being filled with sewage which they dump 100 kilometres (hopefully) offshore. That is not a perfect solution, but is far better than what happens in Australian cities, and is probably cheaper too.

An old idea which was touted many years ago was to pump the sewage to our central Australian regions which could well do with some liquid nutrients. But this is a simplistic solution which would need to be well investigated with trials to check the long-term sustainability and chemical outcome of a long-term plan, so that disasters of salinity aren't increased.

Some people say that pumping it all out west is too costly and that it would be better to dehydrate it all and send the dried remains out west by railway. Maybe. But if Australia's population does increase any more we will have to spend much time, money and effort to fix the problem, and better sooner than too late.

When storing a bulk foam bed mattress, it takes up less space when rolled up. Two people make the job a lot easier. When it is rolled tightly, three **OLD BELTS** spaced along the roll will keep it in place. Belts are wider than rope, so have less chance of cutting the foam. If the belts are too short you can extend them by buckling two together, but this way you will need six belts. Good belts usually end up on the tip because they are the wrong colour, or are slightly marked, but have many uses around the house and shed.

The huge profligate obscene waste in this country continues to amaze me. Try to buy a truckload of crushed, or even just broken, terracotta roof tiles in Sydney and you can't. Remember that not long ago there was a huge hail storm in the Maroubra - Randwick area and almost every roof in the area was trashed? So what happened to all the broken roof tiles?

'Tookem to the tip maaayte,' was the universal reply. Millions of dollars worth! Hell, I could be millionaire now if I had lived in Sydney! Crushed fairly small, terracotta roof tiles make a great road or driveway material, very finely crushed they make a nice topping material for mud and drab grey concrete walls or paving, and coarsely crushed they make a great backfill for agricultural drains around buildings built on a sloping site. When you can buy them they cost about \$4 per square metre for a layer about 10 centimetres thick, so you get the general drift of the lost opportunity. I'm not exactly a benchmark of capitalism but if I was . . . Oh well, that's life.

Many people grumble about how we seem to be overgoverned by far too many bureaucrats, pen-pushers, and worse, but occasionally you get to hear of a good deed by these government employees. Recently, California introduced a law that should be universal. It concerned the **POLYURETHANE FOAM** used in most home furniture, bed mattresses, carpet underlay, car seats and so on. When this burns it releases cyanide gas, which is the same gas used in the gas chambers on death row, and kills most life forms very quickly. Also covered in this legislation is the material which is covering this foam, usually some form of upholstery material.

The law in California makes it a criminal offence to make or sell any object which uses these materials or foam unless it has been treated with an approved flame retardant. A graphically startling video footage on the American TV series 20/20 showed how an untreated lounge chair exploded into a ball of fire within one minute of catching fire from a cigarette butt which fell on to the chair from an ashtray.

Smoke inhalation kills many people every year in Australia as a

result of fires started by kids' playing with matches, candles falling over, cigarettes etc, and if the smoke contains cyanide gas no one has the slightest chance. I wonder how long it will take for this law to come to Australia?

Roberino,

Lot 4, ARAWARRA BEACH 2456.

Dear Grass Roots,

To S Robertson, GR 134, re **MALARIA**: The most effective treatment for malaria is colloidal silver. Colloidal silver is a wide-spectrum antibiotic that works by disabling enzyme(s) used by the malaria parasites for their oxygen metabolism, causing them to suffocate. The recommended dosage is one teaspoon three times daily. It is available at most health food stores and has no side effects. To relieve malarial fever you could try *Wedelia biflora*, a plant used by Chinese medical practitioners.

Krisztian Varro,

32 Barassi St, PARALOWIE 5108.

Dear Grass Roots,

I purchased my first GR while on holiday recently and I'm already hooked! What a wellspring of information, ideas and shared knowledge and wisdom. I am always interested in ways to live more lightly on the earth. We moved out of town a few months ago to a three-acre property which needs some rejuvenating, and have great plans for indigenous woodlands and permaculture-style gardens. I'm wondering if any readers have good remedies for the following problems:

1. Our five year old daughter suffers **HAY FEVER**, causing a constant tickle in her throat from a post-nasal drip, and a resulting cough.

2. On hot nights our windows are completely covered with **LITTLE FLYING BEETLES AND WASPS**. It's not possible to sit outside in the cool without the little beasties crawling all over you. Does anyone know of something which will repel them from around the house?

Linda Cusworth,

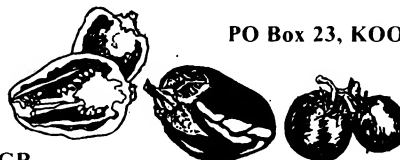
39 Connies Lne, MODEWARRE 3240.

Dear Readers,

I am buying a 1.6 acre block of bushland on which I hope to realise my dream of self-sufficiency. I need lots of native trees and shrubs, but with little money it would take more years than I have to spare to buy them, so I would like to trade **TAGASASTE** (tree lucerne) seeds to anyone willing to swap for seeds of Australian natives. I'm offering 100 tagasaste seeds for any amount of named native seed.

Nicky Casson,

PO Box 23, KOORAWATHA 2807.



Dear GR,

I wonder just how many others are better off without any **NIGHTSHADE VEGETABLES**. After a couple of weeks my joint pains eased! Until, after a tempting potato chip, nearly two days later came that pain for a while. I should explain that I'd already created a far cleaner environment inside and switched to whole foods, eliminating those I realised I was sensitive to. Then tried going off nightshades, and puzzled over passing aches etc that came when I withdrew a family of food, sometimes a favourite. Those nightshades I mean include tomato, potato, sweet peppers, eggplant and tobacco, even second-hand tobacco smoke. So, I also wonder what problems have eased for you. I'll look for your comments in Feedback.

DJ,

C/- PO Box, 117, SEYMOUR 3661.

FEEDBACK LINK-UP FEEDBACK

Dear Megg, Mary & Staff,

Congratulations on your marvellous efforts with GR, a popular and informative magazine, enjoyed by so many at a reasonable cost. Wonder if we could have a 'Where are you column?'. Readers could write in, either by answering requests, or by explaining when they last wrote, telling whether they realised their dreams or changed their plans. For example, Maureen and Barry (Wright), bet you haven't retired? Beverly and Bruce Driver, are you still at 'Dongadell'? Did you realise your dreams?

Finally, has anyone a foolproof recipe for **CRUNCHY SOUR PICKLED ONIONS** please? Please state vinegar used.

A Manhall,
10 Collie Ave, PT NOARLUNGA SOUTH 5167.

Dear GR,

I was wondering if anyone has found a remedy for **BABY ECZEMA**. My nine month old daughter has suffered it for months now. We've tried myriad creams, including a steroid cream prescribed by the GP, but I don't like to use it on her delicate skin. Despite spending loads of money at the naturopath and switching her to soya products, it is getting worse.

Also, I'd love to hear of any creative bath lotions/oils suitable for use in baby's baths. Your magazine is full of so many wonderful hints, I'm sure there must be people out there who could offer advice on this problem.

Taimi Clinch,
5 St Kilda St, MT ELIZA 3930.

Dear Readers,

Does anyone know how to extract **CITRONELLA OIL** from citrus trees, for use in kerosene lamps? Is the process one of distillation or pressing?

Lloyd Collar,
PO Box 14, MISSION BEACH 4852

Dear Grass Roots,

Can anyone tell me where I may purchase a **FRUIT SALAD TREE**, that is, one tree with different fruits grafted on to the base?

F Armstrong,
25 Churchill Cres, WINDERMERE PARK 2264.

Contact: The Fruit Salad Tree Co. J & K West, 'Willow Creek', Gulf Rd, Emmaville 2371.



Dear Megg, Mary & GR Readers,

It's the pure magic created in my little garden here in suburban Parkdale which has enticed me on to a **BIGGER VISION** of a humble home surrounded by abundant greenery, chooks, fruit trees, a water tank and more. The sheer beauty, the awesome energy and cycles of surprises have cast me under a never-ending spell, drawing out a carefree, romantic spirit in me that never dared show during my younger, stifled years of a concrete backyard and meaningless existence. The opportunity has finally arisen for me, at 35, to put a lifelong dream into action. I now have no excuses, no baggage, no obstacles.

Maybe there is a home around the Castlemaine, Kyneton or Woodend areas which I could rent for a while before I purchase. Would any lovely reader out there know of an available property for me to lovingly tend? This is a reliable tenant here with excellent references and skills and strengths, as well as one non-wildlife-killing cat and three gorgeous, exceptionally well behaved boys.

I thank you Megg and Mary in anticipation of you publishing my plea for help and I look forward to all responses from helpful readers.

Mary Jakovac,
62 Herbert St, PARKDALE 3195.
Ph: 03-9580-3859

Dear GR Readers,

I am suffering from a **COMPLETE LACK OF TASTE OR SMELL**. It isn't a funny situation. Indeed, it makes all food and wine a nonsense, and I enjoyed both. I have tried normal medical procedures, alternative medication, even acupuncture, to no avail. I can say this, if anyone has a cure he/she will not be unrewarded. The situation followed a minor operation on my heel.

Ron B Green,
The Gatehouse, NAGAMBIE 3608.

Dear GR Readers,

I answered an ad in the Health and Beauty column of GR many months ago re white tailed spider bite, contacting Sister Christina Palfy, 4/35 St Leonards Road, Healsville 3777, re a natural self-help remedy. My letter and cheque were both returned marked not known at address. If any GR friends can supply me the information I will be happy to forward them a cheque for their trouble.

Thanking you for a great magazine and best wishes to you and all GR readers for a great year 2000.

Veronica Sommers,
22 Maud St, BLACKTOWN 2148.
Ph: 02-9381-4610

Dear All,

I am writing with what seems to be becoming a common request. In May this year I am planning to leave my job and **TRAVEL AROUND AUSTRALIA** with a friend, taking about a year. I would like to visit as many GR people as possible along the way, so if you would like help with a project, or a visit from like-minded people, write and let me know. We will have our own accommodation in our van. I would also be interested to hear from anyone who has already done a similar trip.

Thanks again for a great magazine, I look forward to every issue.

Claire Koestier,
7 Woodbury St, MARRICKVILLE 2204
Email: koetseierc@sesahs.NSW.gov.au

Dear GR,

I am in need of as much information as possible on **TOURETTE SYNDROME**. My young son has this (he is seven years old) and I would be grateful for any advice anyone else has on this disability. He is on medication which helps a little, but he also has ADHD which is really affecting him at school (and his social life), not to mention the family.

Michelle & Joe Santillo,
C/- 7 Robyn St, WOODPARK 2164.

Dear GR Readers,

Thanks to a unique home-based business opportunity advertised last year in this magazine, we now own our 17 acres of hill-side paradise complete with a permanent creek providing us beautiful, clean and cool water. The creek is a joy most of the time, but becomes a raging torrent whenever there is a substantial rainfall. Does anyone out there know how to **TAKE WATER FROM A MOUNTAIN CREEK** reliably? We have experimented with a solid dam, it silted up within a few weeks, after improvements it got washed away totally. Siphoning water from a natural pool was okay, until the next rainfall. We now divert water from a natural fall into a well ring covered in mesh. It needs a lot of attention, but is the best so far. We'd like to improve it so we don't have to prime 600 metres of polypipe to our house below every time the water stops.

On another subject: I'm a recently retired radio technician willing to share my knowledge, if enough GR readers are interested I'll write an article on how to drastically improve your home radio reception. Write or email us.

Vicky & Henry Banninger,
RMB 1086 WODONGA 3691.
Email: edelweis@albury.net.au

FEEDBACK LINK-UP FEEDBACK

Dear GRs,

We have recently purchased a farm **NEAR MUDGEE** in NSW. It was a few years earlier than expected, but we saw the photo of a wonderful view in the real estate agent window and the rest is history. We'll be part-time farmers for a while and are looking to share ideas with/meet up with people in the Mudgee/Gulgong area (nonsmokers preferred). We are also interested to know if there are any permaculture groups or a LETS system in that area.

Now for a few questions: We are interested in **GROWING GINSENG**. Is anyone successfully growing it in the Mudgee/Gulgong area or any suggestions on growing ginseng?

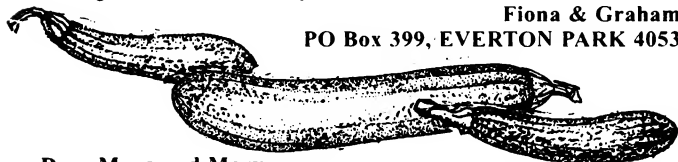
My **ZUCCHINI ARE ROTTING AT THE FLOWER END** prior to becoming fully grown. I've looked in lots of books and magazines and haven't found the cause - any ideas?

I've read that **BUDDING IS PREFERABLE TO GRAFTING** for fruit trees, but haven't found any instructions for budding. Can anyone help?

One of us is a vegetarian, so if anyone is interested in swapping recipes, just drop us a line.

Whilst not being part-time farmers, we'd also like to contact people in Brisbane and Sydney who are interested in organic gardening and a relaxed lifestyle.

Fiona & Graham,
PO Box 399, EVERTON PARK 4053.



Dear Megg and Mary,

I envy all those who have moved to their little piece of paradise. After years of talking and dreaming about it, planning and preparing for it, we too can finally see some light at the end of our permaculture-influenced tunnel (and it's not the tunnel on fire).

As I read every issue of your magazine, I can't help but notice there are few letters from beautiful South Australia. Over twenty years together we have lived in a variety of excellent places around Australia, and South Australia for us is the pick of them all. Still, like most readers, our desire is to move out of suburbia and into a more rural lifestyle. We still need to be close enough to commute to the city to my job which I enjoy and cannot give up yet if our plan for my husband being the work-from-home-look-after-the-acres parner is to bear fruit.

It is still possible to buy acreages within one hour's commuting distance of Adelaide, for what in other states would be an impossible song. We have found several beautiful properties with everything a GR reader could want. Unfortunately, the price is still out of our range. So the thought has occurred to me that there are probably other readers in the same position. If so, have you considered the possibilities of a **COMMUNITY SHARE** style arrangement such as is popular in northern NSW and Queensland. We have considered moving to one, however, we really love SA and for a variety of family and health issues don't wish to relocate. I am just beginning to look into the legalities of such a situation in our target area which is the Adelaide Hills. I would appreciate hearing from anyone who has similar desires. Also, if there is anyone who knows of a book that gives some guidelines on how to proceed, I would appreciate it if they could drop me a line to let me know what the book is. Or, if there are others with experience (good and bad) of the process who would care to pass on their knowledge or just get it off their chest, any letters would be appreciated. If you just want to hear more about the excellent weather, education and health benefits, the beautiful

countryside and what a great place South Australia is then drop me a line and I'll write back as quickly as possible.

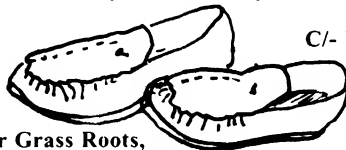
Peta Stuart,
12 Colleen Street, ROSTREVOR 5073.

Dear GR People,

Last Christmas I made a decision which I hope will be the best one I've ever made. In my seventieth year, I have put my home on the market, sent all those things the family want to the family. When I sell, I'll **MOVE INTO A MOTORHOME** and see a different horizon every day, not have to watch the same trees grow, the same flowers bloom, and keep a cottage clean and tidy every time it needs it. I'll be 'on the wallaby', moving, meeting, enjoying and really living life to the full.

I hope my home doesn't take too long to sell, it's only a two-bedroom miner's cottage, but it's fully renovated inside, on a quarter of an acre, a dear little place, on a hill with beautiful views, but I want to enjoy to the fullest capacity possible my penultimate journey. 'Silly old woman,' some will say. Perhaps, but I have made my decision. Because I am a craftsperson, I hope to purchase a cab-over, with solar power, inverter, diesel 5-speed with splitter. Now, if anyone has useful info, advice, ideas to share, please make contact, and, if you want to buy, write.

Polly,
C/- PO BRANXHOLM 7261.



Dear Grass Roots,

Does anyone have a pattern for making **HANDMADE MOC-CASINS** in leather? I have heaps of furniture leather scraps and would like to know how to utilise them. Also any ideas for vinyl? Have only been GR readers for six months but we love it. You can email me on: viluphol@onthenet.com.au, or fax: 07-5522-1959.

Dawn Perdue,
51 Bridgman Dve, REEDY CREEK 4228.

Articles on making moccasins were in GRs 50 & 84.

Dear Megg and Crew

Jim seems to be back on top again now, no more trips to the hospital so far. I think he's sick of being sick and fed up with the sight of doctors, the pills and potions he has to take and the whole thing, but he's still here and his heart has improved a bit.

I'm keeping busy with the boys, the yoghurt making, craft work, letter writing, housework and all sorts of things.

The rotary hoeing still hasn't happened, unfortunately, but I've got potatoes growing in the compost heap, and when I went to empty our scraps onto the heap today, I found a huge bean plant growing and a tiny bean or pea nearby, so it's better than nothing. They must have grown from seeds I planted last year that didn't germinate.

I hope to try my hand at baking bread; making soap, ice cream, pasta and paper; drying and bottling fruit and vegies; decoupage; and **ALL SORTS OF CRAFTS** and things over the next year. I would love to be able to sell some of my craftwork either through a shop or at a market.

I'm still trying to get the deposit together for a couple of acres or so, but it's hard. I'd love to be able to find a way not to have to pay rent, I'd rather pay it off a place of our own, but, for now, I guess I'm where I am and I'm working towards changing the situation.

I've enjoyed the first three issues of *Greenhouse Living*, am finding lots of great ideas to think about and hopefully implement at some time when we have a place of our own.

I hope that all of the staff, readers, and anyone associated with *Grass Roots*, have a fabulous new year.

Vicki Judd,
59 Beresford Dve, BORONIA 3155.

Anonymous letters will not be published. Please indicate if you would like personal details to be withheld.

FEEDBACK LINK-UP FEEDBACK

Dear GR Staff,

Glen Willie is inquiring about **MILLING OUT** his timber and about portable sawmills. Westford Rail Mill, 628-9350-5555, is distributing one version, quite adequate for home milling. Lucas Mills, 03-5728-7283, is distributing another, more professional version. I would like to suggest if you have not done any logging and/or milling, to look for an experienced contractor, as working with timber logs is hard and potentially could be dangerous work.

To Torsten Bozoche, regarding letting his chooks clean up his vegie patches before he plants his new crop: The very first thing they will try to clean up are those hard working earthworms. Worms are a gardener's best friend and you can never have too many of them.

Daniel Davies' letter, regarding cutting up **DISUSED FUEL TANKS**: As the letter says, 'Tanks might explode'. Whilst I am not questioning his skills and ability to do those kinds of jobs safely, what worries me is that jobs like that, in inexperienced hands, with one slip-up in safety procedures could indeed make those tanks explode and make a big mess. No doubt, the Department for Health and Safety in your state could have something to say about the matter.

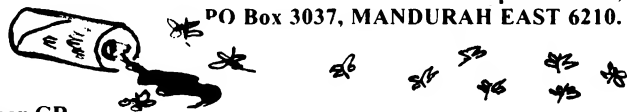
My last point is on **'THE BEE STING' ARTICLE**, which has been well written by a professional beekeeper, to which I would like to add a couple more points. First, bees are very protective of their brood and that is the most likely time for them to be most aggressive. Other reasons for bees attacking without obvious provocation are: when there is not enough nectar and pollen for them to forage, or for some other reason they are not very comfortable. Seldom will bees attack when they are in the field foraging, as long as they are left alone.

If stung by one bee, the best thing to do is, if possible, walk away as quietly as possible, without running or trying to chase the bees away, as there is a good chance more bees will find you. The sooner you scratch the barbed sting out with your fingernail, the less poison will be pumped in, as, even though the bee has dropped off, the poison keeps being pumped in. If no other first aid is available, pure unprocessed honey will help to neutralise the sting, even reduce the swelling.

As most bees' activities are directed by their sense of smell, any bad smell, including that of an excited or frightened human being, or an animal, will send them on a defensive attack. The worst, and probably most dangerous, bee sting is when it happens inside one's mouth, especially at the back of the throat. It usually happens when we drink out of a half-full soft drink can, which has been left outside for a while before drinking. If it happens, especially to a child, and if no other first aid is available, pure unprocessed honey will help: just take plenty and hold it there for a while. No doubt, somebody could disagree with this statement, but believe me I am writing from personal experience.

Joseph Mishkin,

PO Box 3037, MANDURAH EAST 6210.



Dear GR,

For Karen Munday, GR 136: **STRAW BALE HOUSE BUILDING** has been featured on TV and in Sunday papers, as well as in GR and there is a straw bale construction company about 120 kilometres from Braidwood - The Huff and Puff Straw Bale Co. in Kangaroo Valley, NSW. Straw bale houses are most suitable on level ground, on a concrete slab, with re-formed steel rods embedded in the slab to stabilise the first layer of bales. It is important to get the straw walls up quickly, as rain can destroy much work. If straw gets wet it decomposes quickly. Erection of walls is often done as a hands-on workshop (with 12 to 20 people). Huff and Puff used to run workshops (\$100 per day per person including meals).

Fire is a danger during construction. The bale walls are compressed for extra stability, prior to roof erection, covered with

wire netting, then 36 mm of cement render applied all over the walls, inside and out. The area between the walls becomes a reducing atmosphere (reduced oxygen), this limits fire danger, also limits pests (unsuitable atmosphere). Of 52 species of termites, only two are liable to attack straw. Termites need moisture to digest fibre and straw is too dry.

Economically, the closer you build to a wheat or rice district the better, as transport costs can double the price of straw bales. Straw houses are considerably more cost efficient in the long term, saving heating costs. They are much more insulating than double brick. Colouring is added to rendering so house painting is not required. They're fire resistant and comfortable to live in.

I've heard of horse stables built of straw and the horses reportedly love it. I do not see any reason why chook houses could not be built of straw. It would create a nice visual image.

To Helen Sibley: There are books on straw bale house building, also videos - mostly depicting American methods. Why not check with building information centres? The USA books are still informative if one can adapt the info to Aussie climate and conditions. Hope this has been some help.

Kel Connell,

61 Tarean St, KARRUAH 2324.

Dear Megg, Mary & GR Folk,

Thanks for a great magazine. I've been enjoying it for fourteen years. Now it seems my turn to ask folk for some information. I have three beautiful girls under 3½ and I'm looking at educational options in my area, including **ALTERNATIVE EDUCATION** (Montessori) and home schooling. I can only locate information in GR 91 (p54) and GR 94 (p35), and I'm sure there's much more. I'd be happy to back order these articles, or obtain them from GR readers (happy to buy them). But, while I was at it, there's no greater network going for this type of information than with the readers themselves. Any information greatly appreciated; contact numbers for Victoria (the relevant authorities); your own experiences; reading/back lists. Happy to consider buying books you've finished with. Thanks, looking forward to hearing from you all.

Rachel Stone,

Ph: 03-5368-2189.

PO Box 282, Ballan 3342.

Dear Grass Roots,

Re: manual olive crusher/oil press implement. I am an on and off GR reader of more than twenty years. I've always enjoyed the magazine very much and picked up many good ideas over the years. I now seek your kind help, and hope that there is someone out there with expertise in the field of **OLIVE OIL PRESSES**, processing etc. The olive fruits from some of our trees we had over the past few years made preserved or pickled olives for ourselves and friends. However, I would now like to make olive oil and would need a practical, manual-operated machine to do so.

I certainly do not need these modern machines, as they cost too much. What we need is a manual-operated machine with low cost and maintenance. We would very much appreciate it if anyone could assist and provide us with an address of persons, so we in turn could contact them and proceed with the project. We thank you kindly for your help and anxiously await your reply.

P & G Ahmat,

'Allenview', 13 Brookland Rd, BEAUDESERT 4285.

Please keep letters brief, clearly written and relevant to self-sufficiency topics. Letters pushing barrows (religious, political or other) will not be published.

TINNITUS SELF-HELP

by Andrew Mason, Toowoomba, Qld.

A few issues back, D Smith wrote in asking about Meniere's disease (GR 133) and Robyn Stewart (in GR 134) wrote regarding tinnitus (noises in the ear) which was distressing her daughter. Tinnitus can be caused by organic/biological agents (illness, infection), by drugs (prescription drugs, alcohol, caffeine, quinine, even some herbal preparations), or by the damaging effects of loud noise. Always wear ear protection in loud environments. Using power tools, or exposure to loud music without protection, causes damage. The human ear is not designed for loud noise. Think about most loud noises and you may note that they are generally man-made and not something you would naturally be exposed to.

If the tinnitus came on suddenly, you should seek medical attention. This could be indicative of a medical condition such as infection in the ear that should be treated promptly to try to avoid serious long-term damage such as hearing loss or problems with balance. It is also a symptom of Meniere's disease, which can be pretty bad. Just to be on the safe side it is probably good to have a doctor check it out anyway; you don't want to muck around with these things.

I have suffered from tinnitus and other ear problems for ages. Children often suffer from fluid build-up behind the eardrum and this can become infected. This is called otitis media. Adults can also suffer from this and it is an uncomfortable feeling of blocked up ears. Keeping the eustachian tubes open is important (they are the tubes that run from the throat to the middle ear to equalise pressure). I use a little menthol inhalant in a plastic bottle with a piece that fits over your nose and mouth. You can get these from a chemist. Alternatively, you can do the bowl of hot water and towel over the head inhalation procedure. I have now developed the habit of periodically holding my nose and gently blowing to make the ears 'pop', which is the opening of the eustachian tubes; this helps keep them clear and open. I try to do this as often as

I can, many times a day.

There is a lot said about tinnitus, but it seems everybody must find their own relief. Some people suggest ginkgo biloba, which needs to be trialled for a little while before an effect can be noted. Ginkgo is supposed to help by increasing the blood flow to the ear. In some people, the tinnitus is suspected to be caused by the blood flow in the ear; the rushing sound somehow manifesting as their tinnitus. In this case, ginkgo biloba can make the problem worse.

Someone told me recently to try zinc. I haven't done this yet so I can't vouch for its effectiveness. There are substances that tinnitus sufferers should avoid taking a lot of. These include caffeine, alcohol, cigarettes (all the usual suspects there; cigarettes are supposed to narrow the blood passageways in the ear). Avoid too much quinine (Indian tonic water). Some prescription drugs cause tinnitus as a side effect, so they exacerbate existing tinnitus. Most of all, avoid loud noise or any noise that seems uncomfortable. Some pitches and tones seem more annoying than others.

Listening to some background noise can be beneficial. It may be that it helps you to train yourself not to listen to the tinnitus. For a while I found soothing music seemed to settle the tinnitus down after a period of a few weeks. It seemed like a massage for my middle ear. Noises like the sea crashing or bush noises can also be good (sometimes they can also be annoying). It is probably a matter of attitude also. In the dead of night, when I hear a noise that could be a prowler, I have found that the harder I strain to hear, the worse the tinnitus is. Also, if it's a hissing sort of noise, instead of lying in bed with it annoying me, I tell myself that it is like being at the beach with the constant sound of the sea. It's a bit harder when it is really playing up and it sounds like the inside of a timber mill. I also found that lying in a warm bath with my ears under the water was soothing, but it is best not to do this if you have a perforated eardrum, or grommets inserted in the eardrum (to equalise pressure when the eustachian

tube is blocked).

Some doctors are not very helpful, saying there is no treatment, which is true, but there are things you can try to help make living with tinnitus easier. I had one doctor tell me I was too young to have tinnitus: 'It's an old man's problem, one who has been working in a factory all his life'. I had another tell me, probably trying to be positive: 'Well the good news is, you can't die from it'.

There is information available in libraries and on the internet (but I haven't explored this avenue very far). I found that the libraries at universities (particularly those that offer medicine) have a few books on ear problems. I think tinnitus is starting to become more widely recognised now and there are some support groups around. I contacted the Australian Tinnitus Foundation and they sent out some information. I believe they also have a regular newsletter with updates and suggestions. You can contact them for more details:

Australian Tinnitus Foundation
PO Box 660
Woolahra NSW 1350
Phone: 02-9361-7331

There is also an organisation to help aid in understanding Meniere's disease and they put out a useful little booklet, some of which is relevant to people who suffer from tinnitus (I read this in the library). Their address is:

Meniere's Australia Inc
PO Box 202
Moonah
Tasmania 7009

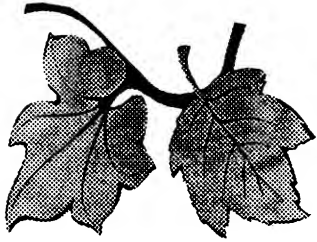
I hope this is of some help to you.

FAN HEAT DOWN

Use ceiling fans in winter to force hot air down to ground level – they only cost 1 – 2 cents per hour to run.

WASHING OVERLOAD

Don't overload your washing machine or use too much soap powder – more energy is wasted and cleaning is not improved.



KIDS PAGE



A new season reminds us of the wonders of nature. Autumn is now upon us and there are some dramatic changes in the natural world, especially the fantastic autumn colours of trees and the coolness of the mornings and evenings. It's fun to observe the natural world and then create visual images of it or to write or read about it. Here are a few ideas to get you started.

A Nature Mobile

You will need

- ★ 5 polystyrene balls
- ★ old papers (torn into small bits)
- ★ glue
- ★ paint
- ★ string or fishing line
- ★ a tree branch



Cover each of the polystyrene balls with several layers of paper and glue, moulding them as you go into approximate shapes of five different objects from nature. We made a bird, a sun, a snail, a flower and a ladybird. When dry, paint the objects brightly. Attach each object to the branch with string or fishing line. Hang your nature mobile in your bedroom or playroom and you will be reminded of the natural world.

Puzzled Nature

Find these parts of nature amongst the letters. There are 20 words to find:

bat
dingo
seed
hive
snail
sky
ladybird
leaves
ant
gum
tree
land
nut
mud
lamb
bud
bulb
hen
sun
owl

l	a	m	b	p	b	u	l	b
a	a	j	s	n	a	i	l	u
n	o	d	k	u	s	e	e	d
d	p	i	y	t	n	s	a	l
h	e	n	k	b	h	i	v	e
b	a	g	u	m	i	o	e	f
a	n	o	w	l	u	r	s	j
t	t	r	e	e	m	d	d	k

Nature

I am the breeze flowing through the trees,
I am the wind carrying the seeds,
The ducks on the dam and on the nest,
the roosters are crowing and the hens are at rest.

I bring you the scent of flowers nearby,
and carry the pollen across the sky.
On a sunny spring day I brush your cheek,
I know that you love me, there's no need to speak.
Emma Richardson, aged 8.

Try writing a poem about nature yourself. Remember poems can rhyme but they don't have to.

What is 'Nature'?

Nature is anything in our world not made by humans. The sky, sea, animals, birds, trees, clouds, insects, the dirt we walk on are all part of nature. Make a list and draw or find pictures of as many natural objects as you can.

BOOK REVIEW

The Littlest Honeyeater

Written by Gwen Deem
Illustrated by Dorothy Hall



This story tells of the dramas experienced by a family of honeyeater birds when a storm strikes and illustrates how humans and the bird world can interact positively. The colours and style of the pictures accompanying the story bring the Australian bush to life beautifully.

Published by True Blue Books, 243 Ann Street, Maryborough, Qld 4650. Ph: 07-4122-3295.

IN THE KITCHEN

Arguably the most popular vegetable, bought tomatoes are too often disappointing in both taste and texture. Recent experiments conducted by Diggers Seeds proved heirloom tomatoes to beat hybrid varieties hands down in the taste stakes. They also found that ungrafted plants out-produced grafted varieties. Tomatoes are so easy to grow that home gardeners are usually rewarded with copious quantities throughout summer and autumn. Luckily, they are also extremely versatile and adapt well to a wide variety of recipes.

Tomatoes first grew wild in South America around the time of the Incas and the Aztecs. The Spanish brought the seeds of what were then small yellow tomatoes (*tomatls*) from Mexico to Europe where, after initial reluctance because of their membership of the deadly nightshade family, they gradually became popular. Arguments often arise as to whether tomatoes are fruits or vegetables; from a botanical perspective, they are technically berries.

GROWING TIPS

When growing your own, yields are higher if trellises are used, but this is not usually an issue with home gardeners as tomatoes are so prolific that it can be difficult to use all the crop. Another way of improving the harvest, if this is desirable, is to trim the tops off the seedlings when planting them in the ground. This method does delay the harvest by two to three weeks.

The common problem of blossom end rot can be avoided by testing the pH of the soil before planting and adding lime or wood ash if the soil is too acid. Also ensure plants are watered evenly, as drying out can interfere with calcium intake even if the pH is otherwise acceptable.

STORAGE

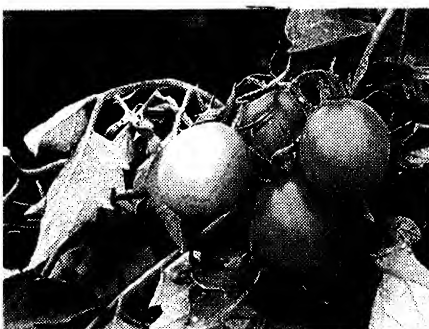
Tomatoes stored in the fridge cannot continue to ripen naturally, and lose flavour and texture. Allow them to ripen naturally at room temperature before refrigerating, and try to eat or preserve them as soon as possible after.

HEALTH

Tomatoes are an excellent source of vitamin C, as well as containing useful amounts of vitamins A and E, folacin and dietary fibre. Ripe red tomatoes also contain lycopene, an antioxidant

thought to reduce cancer risk. Research indicates that tomato consumption can reduce incidence of cancers of the prostate, lung, stomach, pancreas, bowel, breast and cervix, being particularly effective in the case of prostate cancer. Lycopene is also said to be beneficial in preventing heart disease. Even tomato sauce is beneficial. Lycopene levels have been found to be higher in cooked and processed tomatoes, although beneficial enzymes are destroyed.

For health and good taste, try some of these simple tomato dishes.



STUFFED TOMATOES

- 12 large tomatoes
- 400 g tasty cheese, grated
- 3 large eggs, beaten
- 300 ml sour cream
- 2 tbsp chopped parsley
- 1 tbsp chopped basil
- wholemeal breadcrumbs
- butter or olive oil
- ground black pepper
- sea salt

Cut tops off tomatoes and gently scoop out pulp, taking care not to damage shell. Mix pulp with cheese, eggs, sour cream, parsley and basil. Thoroughly mix in enough breadcrumbs to make a soft mixture that holds its shape in the hand. Add salt and pepper to taste. Fill tomato shells with mixture. Dot with butter or lightly brush with olive oil. Place in a

greased casserole dish and bake in moderate oven for 20 – 25 minutes.

Serve on toast for lunch, or on a bed of brown rice or noodles for a more substantial meal.

The filling can be varied according to your tastes and your pantry/fridge contents. Add chopped ham or bacon, olives, capers, corn, chopped sautéed onions, other herbs to make this dish different every time.

SPRING VEGETABLE SALAD

4 large tomatoes, chopped, or a generous double handful of small tomatoes

- 1 medium cucumber
- kernels from 2 large cobs corn
- 1 cup sliced green beans
- 2 tbsp chopped parsley
- 1 tbsp chopped basil
- 2 tbsp chopped spring onions
- half cup yoghurt
- quarter cup pesto

Mix yoghurt and pesto together. Combine all other ingredients in a large salad bowl. Stir dressing through. Substitute your own favourite dressing if pesto is not to your taste.

TOMATO SAUCE FOR PASTA

- 2 kg ripe tomatoes, roughly chopped
- 3 cloves garlic, crushed,
- 2 onions, chopped
- 2 large red capsicums, chopped
- 2 – 3 tbsp olive oil
- 1 tbsp chopped basil
- 1 tbsp chopped oregano or marjoram

- 1 tsp finely diced sage
- 1 – 2 cups red wine, to taste

Cook onion in olive oil over low heat till tender. Add herbs, capsicum and garlic to onions and cook for two minutes longer. Add tomatoes and wine and bring to the boil. Simmer, covered, for about 20 minutes, stirring occasionally. Serve over your favourite pasta; accompany with crusty bread.

COOKING WITH SOY

by Jeanne Stewart Brown, Thirroul, NSW.

There is growing interest in cooking with soy. Research on its implications in prevention of cancer, kidney disease, osteoporosis, menstrual and menopausal problems is currently under way. Some of the research has been motivated by comparisons between Asian diets and Western lifestyle related to disease rates in respective cultures. Studies are showing that soya protein will reduce cholesterol, as well as having other health benefits.

In my experience many people are quite unsure of using soya products, even though these have been available for some time. Soya bean products include soya milk and soya flour; soya sauce; tofu (soft, including silken, firm, or very firm); miso, which is used as a vegetable stock; tempeh, which is made from partially cooked fermented soya beans; and textured vegetable protein (TVP). These products are available from supermarkets, health food stores and Asian stores.

Atsugae is a deep-fried regular tofu with a crisp golden brown exterior and a white inside and is mainly found in Asian stores. It is delicious with a tasty colourful sauce and vegetables, and is a favourite in my home. Also, a large variety of fresh tofu is generally kept in refrigerated sections of Asian stores and is reasonably cheap. There are other byproducts of the soya bean not so well known and I will not go into these here as it becomes too confusing.

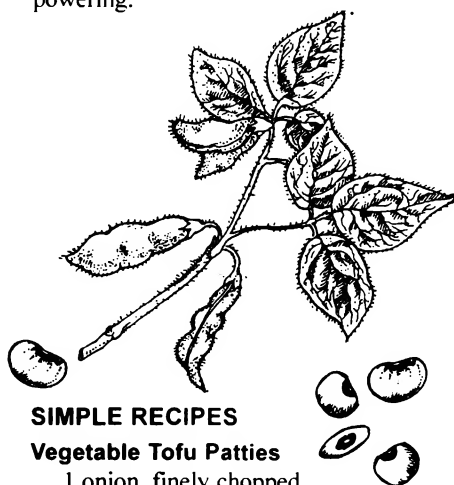
Tofu is bean curd and it is packed floating in liquid. When using it, pour the liquid off and rinse. It is very easily digested, being an excellent source of protein as well as linoleic acid, vitamins, calcium, and other essential nutrients. It is lactose free. However, tofu alone is very bland and must be dressed up with other ingredients.

I hope you will take up the challenge and increase the amount of soy in your menu planning. Be a little sparing at first. It takes time to introduce this to some families. Most people find dried beans very difficult to cook. Soya beans are particularly hard and so a crockpot is an excellent tool. They will take up to eight hours to cook, covered well with

water. Soaking helps, as well as putting them into your freezer overnight.

TIPS FOR USING

- Add a can of drained soya beans to your favourite vegetable soup.
- Throw a handful of cooked soya beans into your stir-fry.
- Enrich your cookies and pastries by replacing one tablespoon of wheat flour with one tablespoon of soya flour.
- Use soya flour as a 'binder' when making patties or rissoles, but don't be heavy-handed as it can be a little overpowering.



SIMPLE RECIPES

Vegetable Tofu Patties

- 1 onion, finely chopped
- 1 stick celery, finely chopped
- $\frac{1}{2}$ green or red capsicum, finely chopped
- 1 small zucchini, grated
- 1 packet tofu, around 300 g, drained
- 1 egg, beaten
- 2 tbsp wholewheat flour
- 2 tbsp soya sauce
- 2 tsp curry powder, or half-cup grated cheese
- wheat germ, cornmeal, or sesame seeds to roll in

Makes about 20.

Saute finely chopped onion, celery and capsicum in oil until soft. Add grated zucchini. Mash drained tofu with fork and mix in the egg, flour and soya sauce. Add vegetables and either the curry powder or cheese and form into small patties and very lightly roll them in wheat germ, cornmeal or sesame

seeds. Gently place in frying pan with a little hot oil until brown on one side. Carefully turn over to cook other side. Do only five or six patties at a time and begin again. Can be baked in a moderate oven. Serve with vegetables and salad. A rich tomato sauce adds extra flavour.

Soya Bean Hotpot

- 1 tbsp oil
- 1 clove garlic, crushed
- 1 medium onion, chopped coarsely
- 1 stick celery, cut on the diagonal
- 1 carrot, cut diagonally
- 1 red capsicum, cut into julienne strips
- 1 cup frozen peas
- $1\frac{1}{2}$ cups sliced mushrooms
- $\frac{1}{3}$ cup tomato paste
- $\frac{3}{4}$ cup water (or liquid from canned pineapple if using)
- 2 tbsp cornflour
- 2 tbsp soya sauce
- 440 g can pineapple pieces
- 1 can soya beans or 1 full cup home-cooked
- $\frac{1}{2}$ cup blanched almonds, halved and toasted
- 1 tsp basil (dried), fresh can be used salt, optional

Heat oil in large saucepan or electric frypan. Saute garlic and onion until soft. Add celery, capsicum, tomato paste, carrot and mushrooms and the $\frac{3}{4}$ cup water. Bring to boil and simmer. Cover for five minutes to soften the carrots. Blend cornflour with soya sauce, pineapple juice and enough water to make about two cups liquid. Stir into vegetable mixture. Add pineapple, soya beans, almonds, basil and salt. Heat thoroughly, then add peas. Serve over bed of brown rice or rice noodles. Serves 6 – 8, lactose free.

Soya Pancakes

- 1 packet of soft tofu (silken can be used), drained and mashed
- 1 tbsp oil
- 1 cup (250 ml) soya milk
- $1\frac{1}{4}$ cups self-raising flour (wholemeal preferably)
- black pepper
- 1 – 2 additional tsp oil

Blend the tofu, oil and soya milk until smooth. Add the flour and pep-

per and blend a further 10 seconds. Heat oil in frying pan and drop in spoonfuls of mixture and cook until bubbles rise and begin to burst. Turn over carefully and cook two minutes on other side.

Makes 12.

Tofu Burgers

375 g firm tofu, drained and mashed well.

- 2 tbsp soya sauce
- 2 tbsp peanut butter
- 8 shallots, chopped fine
- 1/2 cup quick-cooking oats
- oil to cook

Combine all ingredients except oil.

Carefully form into burgers and place in frying pan of hot oil. Gently cook the burgers for two to three minutes on each side until brown. Do not turn continually. Drain on paper towel to remove any excess oil.

Serve with a green salad, bread and a tasty sauce, tomato sauce is fine.

Makes 10.

Soya Nut Cookies

- 1 cup soya flour
- 1 1/2 cups wholewheat flour
- 1/2 cup brown sugar, firmly packed
- 1/4 cup honey



- 125 g shortening (or 1/2 cup oil)
- 1 – 2 tsp vanilla essence, to taste
- 2 eggs, beaten
- 1 cup chopped pecans (or other nuts)

Cream shortening and sugar together.

Add eggs and honey and beat well. Add flours, nuts and flavouring. Blend well. Drop by spoon on to oiled cookie tray and flatten with floured fork.

Dough may be chilled and sliced.

Bake at 350°C (moderate oven) for 10 – 15 minutes until light brown. Watch carefully.

Makes about two dozen.

See GR 128, p50, for more on soya beans and other pulses, including nutritional content and how to cook them.

EU BANS BABY TOYS CONTAINING PHTHALATES

The European Union Commission has introduced an emergency ban on baby toys made from PVC containing chemicals called phthalates, which are used to soften PVC. They are suspected of causing liver and kidney damage and testicular problems. Permanent bans and warning labels will take two years to be approved. The chemical industry is developing tests to measure any leakage to ensure that safe limits are not exceeded, though eight EU countries have already imposed unilateral bans on some phthalates.

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THE OLD GREY FERGIE

by Mick Arnold, Port Pirie, SA.



As more people realise their dream of a few acres in the country, no doubt many will come to the same conclusion we did. If you can only work part time, you really have three choices: you can let the weeds have it, you can get yourself some sort of four-legged cultivator, or you can take a look at mechanising the work.

When we bought our 75 acres, we decided a small tractor was the go. With the 50 arable acres in the care of a share farmer, we wanted something to help us in our efforts to restore the 25 acres of salt-degraded land we had left. Enter Fergie. My father came across Fergie when he was selling a car.

'I want the car,' said the man, 'but I have to sell my little Fergie first'. To cut a long story short, we very soon had an aging grey TEA20 Ferguson tractor in the driveway and \$1550 less in the bank. Dad had one less car in his driveway. I haven't seen the man who sold us the tractor and bought the car, but I assume he's happy too.

They come in a lot of different versions, you know. The list is almost endless. Hundreds of thousands were made.

Some had take-off points for tapping into the hydraulic system. Some had lights. Ours is petrol, and I think this makes it a TEA20. Diesels are TED20s, I think, and I reckon the kero models are TEF20s.

Any 40-odd year old work vehicle is going to be worn. I've learned a lot lately. For instance, don't order parts for a Massey Ferguson 20, because that is an entirely different beast (of a different colour even). Following is a guide to some traps to be aware of if you are thinking of buying a Fergie.

Check the three-point linkage thoroughly. Take two husky friends with you. If your prospective purchase cannot lift them with the engine just above idling, it could cost a lot to fix. The three-point linkage on early Fergies was capable of lifting 340 kilos at the ends of the linkage arms. Later models could lift 364 kilos.

When we got Fergie home she wouldn't lift the skin off a cold custard. The hydraulic ram which operates the three-point linkage is attached to the underside of the large plate, at the top of the gear box, which carries the operat-

ing lever and the seat. Disassembly to inspect the ram means you pull out the internal arms which attach the lever to the hydraulic pump. This pump is located in the bottom of the gearbox, and boy, do you have to be agile to get it all back together. The ram in our new baby was cracked across the mounting flanges and the bore was scored. Fortunately, I know the Apprentice of the Year, and he relished the challenge. After carefully preheating the cast iron cylinder, he arc welded the ground-out cracks with special rods and wrapped the lot in a blanket to cool slowly. A quick hone with a borrowed honer, a \$20 set of rings, and back in it went. It worked! Just as well, because the next step was the pump and that looked well beyond the home mechanic.

She's not exactly Superwoman, but she'll lift most small implements. For regular lifting of heavy weights, try to obtain a set of front wheel weights. These are large iron weights which bolt to the front wheels to counterbalance the weight on the three-point linkage. They don't steer at all with the front wheels off the ground.

If the old girl won't even try to lift, check you have the clutch out and the PTO lever engaged (left-hand side, on a circular plate on the side of the gearbox). The PTO and the hydraulics will not operate with the clutch in. The spline on the PTO shaft is smaller than that of most other tractors. 'No worries,' said Dad. 'Got an adaptor in the shed.'

I'm assuming you've already found the 'S for Start' position on the gear shifter. This prevents starting the tractor in gear, but remember to switch the ignition on or she'll sit there turning over all day without firing. Fergie's starter switch played up, so now I've fitted a conventional solenoid, which started life in a '69 Mustang.

Other traps for the unwary? Well, one of the curliest would have to be the bottom mounts for the three-point linkage arms. If the pins come loose, they allow oil from the drive train to leak. Be warned, the gearbox, differential and hydraulics are all connected and, if you let all the oil run out, it takes 22 litres to fill it up again.

The mounting pins are secured by castellated nuts, inside the axle housing. Yep, if you want to tighten it up, you must remove the wheel and unbolt the axle housing. I chickened out. Hoping that the split pin has not disappeared altogether from the internal nut and has only allowed the nut to turn a little, or perhaps that the mounting pin itself has merely stretched a little, I opted to drain the oil, clean around the problem area, and give it a generous helping of silicone sealant. Then I put the oil back in. It hasn't broken off altogether yet. I'll do it properly when it does.

Have I mentioned flat batteries? As far as I can tell, Fergies are positive earth, the opposite of modern cars. The manual at the library doesn't say.

Perhaps it is a self-evident truth to everyone but me. Anyway, she starts easily with the crank handle, if you remember to turn on the fuel and the ignition, open the throttle a little and pull out the choke. Take a big breath, ignore all the stories of broken arms from backfiring engines, and crank like blazes. If you're reasonably fit, Fergie will capitulate before you do. You'll know when she's running; you'll suddenly be unable to keep up.

On the subject of batteries, tie it down. My second-hand battery doesn't have a lot of clearance under the bonnet. I didn't clamp it. The short welded the battery to the underside of the bonnet. The incident took years off my life!

Tractors get a belting over the years and often spend a lot of their lives out in the weather. Electrical wiring, although there's not a lot of it, can suffer. Check it carefully for corrosion and breaks in the insulation. The little carbon contact in the centre of the distributor cap wore out on Fergie, but, instead of a new cap, my local Repco dealer sold me a replacement contact for \$4.

Sounds like Fergie is more trouble than she's worth? Wrong! Properly maintained, and not asked to do more than a baby tractor is capable of, the old girl worms her way right into your good books. I check the oil and water, connect the battery, start her up and away we go! If you don't like the engine oil pressure, there's an adjuster on the side where the oil filter screws on. About 70 PSI when cold will do. Dad says use low-detergent 30 weight oil if you can get it. Change the oil in the oil bath air cleaner occasionally too. Any clean engine oil filled up to the line should do.

I sat down and admired Fergie's back end the other day. There are eight different rim and wheel centre combinations you can use to get different track widths.

You can vary the front axle width, too. If you need a front tyre, try motorcycle wreckers. My pal's got a Fergie with knobby tyres on the front. Tyres can still be bought new.

We have managed to pick up a grader blade that happens to be an original factory accessory. Fergie has no trouble pulling the ripper I made from an old mouldboard plough. The back tyres are full of water, which greatly aids traction. We grade a clear row, rip a line 30 to 40 centimetres deep down the centre, and in go our home-grown natives. I try to slope things so rain runs towards the trees.

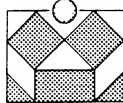
Speaking of pulling things with tractors, Fergie has four threaded holes on the underside of the differential housing. Dad says this is where you should mount the drawbar, for pulling implements which do not connect to the three-point linkage. This puts the centre of effort below the centre-line of the back axle. Tractors can be flipped, with fatal consequences, if the centre of effort is above the centre-line of the back axle.

The old girl has even seen duty as a fence post remover. With a chain around the post, and a few revs on, she was able to pull posts out of the ground if they weren't concreted in. Oh yes - revs. Fergies are governed to about 1800 rpm. I daresay trying to increase this would damage your tractor and void the warranty.

If nothing else, if you buy a Fergie you will not want for conversation. Every old-timer around will stop to reminisce. Believe me, there is an incredible wealth of knowledge about living on the land out there, waiting for an ice-breaker like Fergie to come along. She may be long in the tooth and not as powerful and well equipped as more modern tractors, but Fergie is a beauty just the same, and we wouldn't be without her.

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RED RADISHES GALORE

by Gaelle Murray, Pialba, Qld.

The radish is an ancient vegetable and has been popular for several thousand years. It comes in a variety of shapes and sizes, with the most popular form today being the red radish. In Europe, radishes are often consumed with bread and breakfast cereals. The Japanese enjoy the Daikon variety with all rice dishes.

NUTRITION

It has been found that radishes aid digestion when consumed with starchy foods such as potatoes, pastas and grains. They have good dietary fibre, contain four calories per 25 grams, and have considerable nutrient value in the form of iron, calcium, vitamin A, vitamin C, folic acid, riboflavin and thiamin.

GROWING

Radishes can be sown all year round, about every three weeks for a constant supply. In winter, a sunny position should be chosen and they will need a constant supply of water whatever the season. They are the quickest and easiest seed to germinate and are usually ready to pull within six weeks. They have a finer flavour if eaten young. Pull at about the size of a 20 cent piece. If left to mature too long, they become soft and spongy and are as unpleasant to chew as cotton wool.

MEDICINAL USES

If you enjoy sprouts, then consider consuming radishes that way. They mix well with alfalfa sprouts and are also good with salads, dressing and dips. As a sprout, the radish helps clear mucus and repair the membranes.

If one has chronic diarrhoea and has nothing else available at home to stop it, the radish will do the job effectively. In a food blender mix together thoroughly a handful of chopped red radishes, one cup of cold milk and half a teaspoon of cornstarch. Drink the entire amount slowly. This should work within an hour. Repeat again in four hours if necessary.

A good remedy for reducing and eliminating solid fat deposits and hard

fat in body tissues is found in the form of a vegetable drink. Equal portions of grated carrot and radish (one tablespoon of each) are added to two cups of water with seven drops of soy sauce and one teaspoon of lemon juice and a pinch of kelp. Allow to boil for five minutes. The broth is then strained. Take one cup daily, half in the morning and half at night.

A handful of chopped radishes, put into a food blender with crushed ice and thoroughly pureed until a thick even mixture is produced, can be applied directly on to a burn or scald. It brings almost instant relief from pain and slows down infection considerably. Cover loosely with clean muslin and tape to hold in position.

VERSATILITY

The versatile radish can be eaten in salad or grated and teamed with meat or fish. Perhaps it could be cut into chunks and added to stews, or creatively made into flowers for garnish. Whether you are a fussy gourmet or a health enthusiast the radish is a tempting morsel worthy of inclusion in your healthy lifestyle.

RECIPES

Devil's Delight

- 3 raw beetroot
- 3 green apples
- 3 white radishes

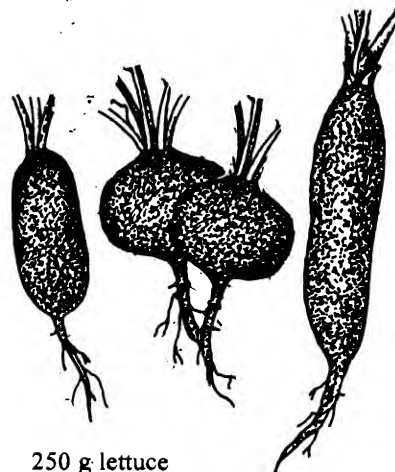
Dressing

- 2 tbsp sunflower oil
- 1 tbsp lemon juice
- 1 tsp Meaux mustard
- 3 tbsp chopped parsley
- 4 spring onions, chopped finely
- black pepper
- 1 tsp vegetable bouillon

Grate the beetroot, apples and radishes, preferably in a food processor, then mix together in a bowl. Put the dressing ingredients in a screw-top jar and shake. Pour dressing over the salad and toss.

Scottish Pine

- 250 g tomatoes, diced
- 6 radishes, sliced finely
- 6 spring onions, chopped finely



- 250 g lettuce
- 3 tbsp parsley, chopped finely
- 1 cup alfalfa or fenugreek sprouts
- 90 g pine kernels

Dressing

- 1 tbsp cider vinegar
- 3 tbsp sunflower oil
- 1 clove garlic, chopped finely
- 1 tsp vegetable bouillon powder or salt

- 1 tsp Meaux mustard
- black pepper

Combine the finely chopped ingredients with the lettuce and the sprouts. Mix the dressing ingredients together in a screw-top jar and shake well. Pour the dressing over the salad, toss, and garnish with the pine kernels. Serve chilled.

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RAMMED EARTH TO LOCK-UP

by Bette Shiels, Bundaberg, Qld.

Last time I described the building of our rammed earth walls and the laying of the floorboards; now we proceed with roofing and internal fitting out. A special feature is the mosaic floor designs I devised from broken tiles.

Because our rammed earth walls were 300 millimetres thick, we noticed a difference in interior coolness even before we placed the roof. We had roof trusses designed and made by a company in Bundaberg. Col had overspecified the amount needed as our house design was unusual and we didn't want the council rejecting the structure. We used treated pine trusses because they were lighter, enabling me to help Col place them, and, being situated in termite territory, the treatment safeguard-

ed against infestation. We had proven that white ants wouldn't touch our recycled timber by leaving it uncovered outside for over two years. Any scraps of wood nearby were demolished in no time, our wood was untouched.

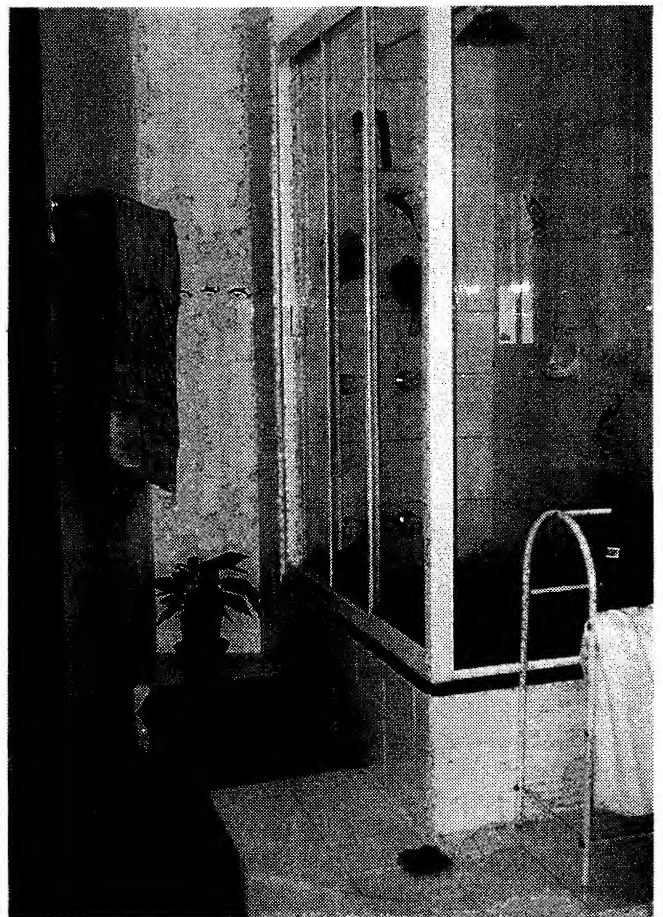
We then employed a friend's husband to place the timber batons for the Colorbond roof to be fitted. This should have been great, because he was a carpenter, but unfortunately, on the first day I found he was afraid of heights and spent more time clinging to the beams than nailing them. I rectified this by re-employing Jamie for a few days and he and I did the roof work while the carpenter measured and cut the timber.

That completed, we needed a roof plumber, so we searched around Bundaberg for the cheapest and best. One day while working at the local Lifeline shop (which I did once a week to get away from hard yakka), a customer happened to hear me discussing the building with another assistant and interjected to say that her husband was a plumber with very little work on at the moment, so we arranged for him to roof the house.

I was still planing timber for the window frames from the recycled wood and was amazed when the plumber arrived with only his wife as an assistant. The job took six weeks longer than expected, but we'd accepted a quote for the complete job, so had to be patient. I was



Trusses in place ready for Colorbond roofing; unfortunately, the carpenter employed to do the job was afraid of heights.



The completely redesigned royal blue and white bathroom with hand-painted dolphin motif tiles.

thrilled when he said it was finished and paid him before Col arrived home from work. I thought it looked great, but Col, being a construction inspector, found that the last section of capping inside the interior garden had been placed upside down. Then two days later we had a heavy rain and two sections of spouting overflowed because it had been sloped the wrong way, also we were minus two downpipes as quoted. We are still waiting for this plumber to rectify the faults. The lesson learnt from this is: don't pay the tradesperson until you are completely satisfied with the job.

The highest section of the roof above the garden was designed with an airlock to enable fresh air to flow through the house at any time. Our next job was to build an alsonite roof above it, which is tough enough to withstand the elements and allows extra light into the house and garden. It also serves as a hothouse where plants grow so rapidly my impatiens think they are trees and have to be cut back regularly.

The window and door frames we cut from the recycled timber and treated with linseed oil and penetrol to bring out the grain and preserve the timber. We opted for aluminium windows and doors and were soon at lock-up stage.

With the roof on, the interior of the house remains at a constant temperature of 24 degrees, no matter what the outside temperature may be.

Col spent every evening from 5pm until around 11pm, building the interior bedroom walls around the garden area, arranged so that the garden can be viewed from every room in the house.

Because of the original plumber's misplacement of the pipes, we had to completely redesign our bathroom. One pipe outlet was so close to the wall it was impossible to connect a polypipe to either it or the shower recess because it had to have a bend. We decided to build a platform 300 millimetres high, to place the hipbath-cum-shower recess upon. We fitted the end panel with screws that could be removed should any plumbing problems arise. I managed to find an ideal corner vanity unit in a second-hand shop. This I stripped back and varnished to match the door frames and other fittings. The porcelain top was cream, and, as my colour scheme was



The highest section of the roof was designed with an airlock to facilitate fresh air flow.

royal blue and white, we had a friend duco the basin top to our exact colour. This way, should the basin get scratched, we can cut and polish it.

I tiled the whole bathroom with white tiles bought from an op shop, saving almost twenty dollars per box. I had to buy new floor tiles in royal blue, but found that seconds saved me ten dollars per box. Now I went in search of the dolphin motif tiles I wanted, only to find each would cost over two dollars. I then asked my eleven year old grandson Beau to sketch a few dolphins for me, which he did. I traced them on to plain white tiles, bought some porcelain paint and painted over the designs before baking them in my oven. For the trim around the bathroom I simply sketched more tiny dolphins on to tiles I'd cut into 50 millimetre sections, and again baked them.

Instead of building an en suite in the main bedroom, we made the bathroom two-way, with doors leading to the bedroom and the laundry area and a visitor's toilet beside the laundry.

When I had completed tiling the bathroom I'd ended up with a multitude of tiles, broken and whole. Being a born conservationist, I knew I would find a use for them, and decided to try my hand at mosaic work. I knew nothing about it, but the bathroom I'd tiled looked great; how much harder could it be to lay broken tiles?

I sketched a design on the concrete floor with chalk and left it a few days, changing it here and there until I was satisfied with it. The design was a

swan on a lake, so that I could utilise the coloured tiles I had. I was pleased with the result, which only took about twenty hours all told.

My daughter Cheree, who is right up with trendy fashions in Melbourne, came for a visit and raved about the mosaic. She asked if I knew what it would cost to have someone do the work I'd done. I didn't have a clue, so was astounded when she said, 'about \$3000'.

Wow! I thought, might as well do some more. I then set off for the nearest tile factory in search of broken tiles suitable for my next project. I found that most tile places will give away broken tiles, but I arrived at the factory the day after they'd dumped a 200 litre drum full of broken tiles at the tip.

Undeterred, I scoured the op shops again, and the full tiles I bought broke down very well. Breaking tiles is a wonderful way to relieve stress, especially if you've had a falling-out with your spouse the night before.

This time I designed a Dreamtime legend of the brolga. In folklore this is a story of an Aboriginal girl called Brolga, who loved to dance in the desert. When a witch doctor from another tribe fell in love with her, she rejected his proposal. In vengeance, he turned himself into a whirlwind and sucked her up into the sky, leaving in her place the bird we now know as the brolga.

I sketched, in chalk, a nude figure of a dancing Aboriginal girl with a whirlwind above her, and again left it a few days until I was satisfied with the results

before I began breaking tiles. This one took almost a month to complete.

The section we had originally designed as an en suite, we decided to convert into a back entrance hall. Col is a horseman and wanted space to hang his whips and tackle. In this entrance I designed a mosaic of a rearing black stallion, much to my husband's delight.

Since first starting our house project, we have managed to save thousands of dollars by using recycled materials. All our light fittings we bought from second-hand shops, markets or garage sales. Our open living area lightshades cost ten dollars each, and, when we visited a friend in her \$180,000 house, we were thrilled to see her fittings were identical to ours.

Our side door is a stable-type door made of teak, which we obtained when the old army barracks in Melbourne were demolished. This allows us to open the top section to let



Tile mosaic depicting the Dreamtime legend of the brolga.

in any breeze. Our shower rose is also from the barracks and is stainless steel and 20 centimetres around, giving the best shower ever. The alsonite we used atop the internal garden, was once roofing on a carport at a redundant construction site.

We are crazy-stoning the verandah

encircling the house at the moment with flat bluestone we get from a friend's gravel pit, just for the cost of transporting it. Hard yakka, but the result is great.

Next comes the paint and plastering, two more arts we have to perfect.



GARDEN BOUNTY

Marigold

by Cheryl Beasley, Karalee, Qld.

Marigolds (*Calendula officinalis*) are an extremely easy-to-grow annual that will self-seed readily each year, ensuring a constant supply of this very beneficial plant. Planted around the vegetable garden, marigolds will repel insects and some (not calendulas, but the *Tagetes* species of marigolds) also kill nematodes in the soil by excreting a substance from their roots.

Marigolds contain healing properties and are good for oily and problem skins.

EASY MARIGOLD NOURISHING CREAM

- 2 tsp paraffin wax
- 3 tbsp lanolin
- 2 tsp almond oil
- 1 tbsp marigold petals

Melt the wax and lanolin in a pan over hot water. Add the oil and bruised marigold petals and heat for thirty minutes. Strain and place into a suitable container to cool. This is a good cream

for older skin and can be used all over the body.

Using the easy marigold nourishing cream as a night cream will soothe and moisturise dry skin to a healthy glow.

MARIGOLD FRESHENER

- 3 tbsp marigold infusion
- 1 cup mineral water

For a healing freshener combine both of the ingredients by shaking and use twice daily after cleansing.

HAIR LIGHTENING RINSE

(oily hair)

- 1 lt marigold infusion
- 1 tbsp lemon juice

Combine and pour through the hair after shampooing and conditioning. Massage into the scalp thoroughly and do not rinse out. This rinse is most suitable for natural blondes, however, it will slightly lighten and highlight most hair colours.



MARIGOLD MASK

(blemished skin)

- 2 tbsp yoghurt
- 1 tbsp bruised marigold leaves
- 1 tsp parsley juice
- 1 tbsp wheatgerm

Mix together all the above ingredients and apply to your clean face. Leave on for twenty minutes then rinse off gently with lukewarm water.

LIQUID ASSETS

by Keith Upward, Darraweit Guim, Vic.

No matter what our lifestyle, we can't seem to get by without paints, stains, preservatives and disinfectants. It's all too easy to trot off down to the hardware or paint shop and, from a very large range, choose just what we need for a particular job. There are some excellent products on the market, ready mixed, many lead free and of low toxicity; the only problem being that parting with an arm and a leg to pay for them can be painful. For various reasons, whether it be economical or environmental, many of us would prefer to shy away from proprietary brands, so I've put together a few alternative recipes and ideas using basic ingredients that are cheap and easily obtainable.

MILK PAINT

Cows' skim milk has been used as a base for paint for thousands of years. The ancient Egyptians used skim milk, quicklime and colours to brighten their buildings. Milk paint was used throughout Europe and was taken to the New World by the early artisans.

Original milk paint hardened more and more throughout the years and consequently was almost impossible to remove unless dipped in an acid bath! You can buy commercially made milk paint as a dry mixture, or you may, as I do, easily make your own, which is cheaper and far more satisfying. This recipe is suitable for small jobs; never mix more than you can use in one day.

2 lt skim milk (buy in powdered form from the supermarket)

170 g lime

120 g powder colour, available from art shops (cement colouring will suffice although rather expensive)

Mix all the ingredients and let mixture settle for 15 minutes before using.

This recipe provides a very gritty finish, but this will disappear as you rub down between coats. Drying time is quick and several coats may be applied in one day. The first coat may appear to be translucent, but the colour will solidify as you apply more coats.

If you wish to give your milk-painted piece an 'aged' appearance, an ageing



Simple ingredients – skim milk from the supermarket, lime from the hardware, powder colour from the craft shop – are all you need to make your own paint.

wash can be made by mixing one teaspoon of artists' oil paint (black or burnt sienna) into half a cup of turps. This can be stored in a jar with a tight cover for use at any time. Wipe/wash over entire project, and, when dry, apply a finish coat such as Danish oil, or even a couple of thin coats of shellac.

LIME: PAINT, DISINFECTANT, AND POOR MAN'S FINISH

Lime as a whitewash and a natural disinfectant has been used for centuries, especially for the interiors of pigeon lofts, dairies and fowl houses. Sadly, however, the frequent use of modern paints and chemicals has made lime redundant for this purpose, although livestock farmers still regularly use lime-based whitewashes and disinfectants for sanitation.

Lime as a furniture finish (limed or liming) has also been around for a long time. It was predominantly used on furniture and panelling made from poorly dressed timber, usually English oak. Its main purpose was to hide defects and blemishes, hence the name 'poor man's finish', for it was not required by the wealthy who could afford well-made and blemish-free furniture. It is now considered trendy and is used as a timber finish

for all species, performing especially well on eucalypts and meranti.

As a Whitewash

Mix 14 kg lime into 30 lt of water. Mix 600 g flour into 1 lt cold water, then add 3.75 lt boiling water. Mix 600 g salt in 4.75 lt hot water. Mix the flour and the salt solutions, then pour into lime solution, thoroughly mix.

This smooth white liquid may be applied with brush or spray and may be used as a disinfecting finish on interior masonry, timber or iron. This whitewash has good holding quality and will not flake easily on rough-sawn timber. It will retain a clean white appearance for many months. I have used this recipe on the interiors of my pigeon loft and chook house for many years and I see no reason to swap this sanitising method for modern chemicals or paints.

There are specific recipes to suit specific areas and situations, here are a few.

Exterior Whitewash

To improve the appearance of outbuildings, sheds and fences etc.

To 9 lt of water add 1 kg of common salt. Stir well. When all salt is dissolved, add 5 kg of lime. Constantly stir until mixture has the consistency of smooth cream. Allow the mixture to stand

overnight, keeping the bucket well covered and stirring occasionally. When ready to use, stir again and add more water until a workable wash is obtained. Alum added to this mix, at the rate of 30 grams to 5 litres of wash, will prevent rubbing.

More Durable Mixes

Soak 2 kg casein in 10 lt of hot water until softened (about 2 hours). Dissolve 1.25 kg of trisodium phosphate in 5 lt of water and add this solution to the casein. Allow to dissolve. Add 25 kg of lime to 40 lt of water and stir to a thick cream. Dissolve 2 litres of formaldehyde in 15 lt of water. When the casein solution has cooled, add slowly to the lime, constantly stirring.

Just before use, slowly add the formaldehyde solution to the batch, and stir vigorously, taking care not to add the formaldehyde too rapidly as this may cause the casein to jelly, thus spoiling the batch. Caution: do not mix up more of this recipe than can be used in one day.

For metal, brickwork, concrete and rendered surfaces the following recipe is most satisfactory.

Mix 25 kg lime, 11 kg white or grey cement and 2 kg of common salt into enough water to make a paint-like consistency. Stir until the salt is completely dissolved. Allow one full day between coats. Caution: Only make up enough of this recipe that can be used in half an hour.

Interior Work

The use of casein is not always acceptable in dairy or similar areas. This is due to the fact that casein is basically 'skim milk' and therefore is not compatible with dairy products. Thus for the whitewashing of dairy interiors, the following recipe is recommended.

Dissolve 1.5 kg of powdered animal glue in 10 lt of water. To 35 lt of water add 25 kg of lime and mix to a thick

cream. Add the glue solution to the lime and mix thoroughly. Thin to desired consistency.

Disinfectant Wash

Mix 25 kg lime thoroughly into 36 lt of water. Add to this 1 lt of crude carbolic acid. Thin to required consistency.

This disinfectant is suitable as an insecticidal wash for general sanitation. If a stronger wash is required for areas that have become infested with vermin, add 2 lt of crude carbolic acid.



General Hints

- All of the washes will be easier to apply and much more durable if the paste or cream made from the lime and water is allowed to stand and soak for a few days before other ingredients are added. It should be stirred frequently and kept covered.

- Casein or glue solutions must be cold before mixing with lime solutions.

- If possible, apply whitewash in clear dry weather. Ensure the surface to be treated has all dirt, grease and scale removed before application.

- The whitewashes should be applied thin. The coating should be translucent while still wet.

- When using a brush, spread the whitewash on as quickly as possible, do not attempt to 'brush out' as you would with conventional paint.

- Wash brushes in clean water as soon as possible after use.

- Skim milk may be used in lieu of casein.

- Five litres will roughly cover: 23 square metres of timber, 18.5 square metres of brick, 25 square metres of plaster.

- The lime quoted in all of the above recipes was originally quicklime or unslaked/unhydrated lime. Quicklime is now very hard to obtain in the powdered form necessary to make whitewash. The builders' lime, commercially known as Limil is more than an adequate substitute.

- All of the whitewashes may be pig-

mented by the addition of powder colours (cement colouring for exterior work).

As A Furniture Finish

Mix 1 kg unslaked lime into 3.5 lt of cold water. This mix will heat up. When cooled, stir to a paint-like consistency then strain out any gritty particles.

Apply with either brush or rag and rub across the grain of the article to be finished. Remove the surplus when partly dried. When completely dry, lightly sand the surface to remove raised grain. Apply two coats of bleached shellac, followed by a white wax polish made with paraffin wax and turps to which is added zinc white powder. This will provide you with a most pleasing finish to your furniture or timber interiors.

Liming Methods Without Lime

Mix whiting with water to form a thick paste. Apply as above. Alternatively, use an oil undercoat, brush into grain, wipe off immediately before drying begins.

Here is a spray-on method passed on to me by a master painter:

1 part oil paint (white or tint)

1 part linseed oil (boiled)

1 part turpentine

Just mix and spray on, no wiping off required! Handy for covering large areas in a short time. My master painter friend assures me that he and a partner completed the inside of a timber-lined two-storey house in one weekend! I tried this method on some of my wood craft, substituting mission brown oil paint for the white. I applied the mix with a low-pressure spray gun. The result? A most pleasing walnut stain finish that required no further treatment.

Next time I'll describe some cheap and novel timber preservation methods.

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AVOID MOULDY FEED

by Elaine Bradley, Dajun, Qld.

Feeding equines can be a major challenge if humid conditions prevail during warm seasons and rains make harvesting a challenge. At times it can be difficult to locate quality, clean hay to maintain horses and donkeys over the winter months. Damp, humid conditions can also make grain storage difficult. Although it may be tedious at times, donkey and horse owners must constantly be on the watch to avoid feeding any type of mouldy feed to their equines, because they are much less tolerant than cattle when it comes to consuming feed with any degree of fungus or mould.

Not all equines react the same way to mouldy feed. Some are exceptionally sensitive and will cough when exposed to any amount of dust. Others will not seem to be bothered at all, but that doesn't mean they can be fed hay of any quality. The effects of moulds are cumulative, building up over time.

DEVELOPMENT AND DETECTION OF MOULD

Hay or grain can become infested with mould or fungi while growing, or may spoil during storage. Severity of the problem can be affected by weather conditions during the growing season or by exposure to moisture during harvest or storage. Moulds thrive in wet conditions and when things get too dry the mould dies. But before it dries, it puts out millions of spores which spread from plant to plant.

The presence of moulds can be detected by sight and smell. White

patches occur on hay bales where external moisture has come onto the bales (more common on square bales). These mould patches can be discarded and the rest of the bale fed out, after having been checked further for other mould development.

Grains often develop a somewhat sour smell and will be discoloured. Mouldy grains will often contain whitish or black spores and 'clump' together. Processed grains such as cracked corn or stock meal are more prone to mouldiness. Humid weather will also increase the occurrence of mouldy grains. However, some of the visible moulds are not as deadly as the aflatoxins or other moulds that may develop during a wet growing season. Mouldy corn can contain *Fusarium moniliform*, a fungus which cannot be seen and produces toxins that cause the highly fatal 'mouldy corn disease'. Thus, often the most deadly corn looks perfectly normal.

Mouldy hay will have an unpleasant odour and musty smell. Hay should be examined for discolouration, whitish mould spores and dust. Mouldy hay is unpalatable and contains fungal spores that can cause heaves, coughing and bleeding. These fungal spores generally appear as a whitish dust on the hay.



Whenever any mould is suspected in feed, it should be discarded. This can be expensive and troublesome for owners, but far less costly than caring for a sick animal. Common sense should be used in deciding whether or not to feed such hay or grain. In hay, often the outer layer of round bales can be removed, with the inner layers exposing clean, good quality hay. Small square bales may have mould on the ends, with the centre portions of bales clean and acceptable for equine feed. However, inspection of the hay may find the entire bale mouldy. Discard any and all portions of the hay that are discoloured, have a whitish dust or a musty smell. Whether it is a single flake of hay or an entire round bale, if mould is found it should *not* be fed to horses or donkeys.

POTENTIAL PROBLEMS

Various types of problems can arise from ingestion of mouldy hay and

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grains by horses and donkeys. They may develop chronic obstructive pulmonary disease (or heaves), which results in a chronic cough and decreased physical performance ability. Moulds may contain mycotoxins which can cause abortions or death. Additionally, equines may develop colic, liver damage, or botulism. Furthermore, owners feeding out mouldy hay can themselves develop allergic reactions to the mould and fungi in the form of flu-like symptoms. 'Mouldy corn poisoning' (also called *Equine leukoencephalomalacia*) is caused by *Fusarium moniliform* within corn and affected donkeys go off feed, are depressed, lose coordination and often die. This fungus lives in the soil and is commonly found on mouldy corn stalks or corn that has been stored wet. Outbreaks of mouldy corn poisoning are more common with donkeys grazing on corn stalks, however, animals fed commercial feeds have been affected.

Corn is an excellent feed for donkeys, but only top quality mould-free corn should be fed. Grain stored where it may draw moisture can develop mould, and condensation inside a metal bin can cause trouble unless old grain is removed before a new batch is added. If corn is to be used, purchase the best quality available and make sure its moisture content is below 15 percent, to reduce the risk of spoilage and mould.

AVOIDING THE PROBLEM

Abnormal weather conditions may promote fungal growth on pastures or hay crops which are ordinarily free of such problems. A late summer or early autumn storm, followed by cool temperatures, may produce ideal environmental conditions for fungal growth.

Mown hay which is rained on before being put up often creates conditions for proliferation of moulds and other fungi. Likewise, lawn clippings are not safe for equine feed as the high water content leads to quick spoilage when piled. Within three to four hours, the high moisture content in grass clippings causes chemical changes within the grass if it is piled and cannot dry out quickly. It then heats and ferments, producing mould, and may also produce nitrate.

Avoiding moisture in stored feed as much as possible will reduce the likelihood of spoilage. Hay which was put up

too green, or was rained on in the field, may already be mouldy. Thus, all hay should be inspected before it is purchased. This is especially important after a wet summer.

Moisture content is the key to good equine hay, with 12-15 percent moisture being the best for putting up good quality hay. There is potential for hay to develop mould when baled at more than 16.5 percent moisture. Hay baled at 20 percent moisture or higher (too freshly cut or if trying to maximise leaf content) may need a preservative. If in doubt, refer to your stock feed supplier.

Grass hay offers a little more safety than lucerne because it doesn't pack as tightly, and therefore there is more opportunity for air movement through a bale. Large round bales may be more susceptible to mould development, particularly if baled tightly at a higher moisture content. In this instance, not enough air can move through the large mass of hay for it to cure properly.

The preferred storage for hay is indoors with the bales elevated off the ground. The hay storage area can be lined with wooden pallets or discarded rubber tyres. This allows the bottom layer of bales to remain drier, and should result in less spoilage. Good grain storage facilities greatly reduce feed contamination and loss of feed. To minimise spoilage problems in grains, the storage facility should do the following:

- allow good ventilation of the feed;
- maintain feed at a cool, uniform temperature and at low humidity;
- protect feed from direct sunlight, moisture, rodents, insects, and donkeys;
- be clean and easily cleaned;
- be placed in a convenient location.

As storage temperature and humidity decrease, so do spoilage problems. Control of moisture content of feeds is the single most important factor in prevention of spoilage during storage.

SALVAGING MOULDY HAY

While no mould is the preferred option, some hay with only a small degree of moulding can be used. Wetting the hay thoroughly and feeding it wet is one option. Bob Coleman, a horse specialist from Canada, gives the following suggestion: 'Get a trough or tank and thoroughly soak the hay.' (It may also be worth adding a half cup of cider vinegar to the water, which may also attack the moulds.) He further states: 'It has to be

wet all the way through. Don't believe those pictures in old horse books showing someone with the watering can sprinkling the hay.'

Another alternative may be to shake out the hay in an open area away from the donkeys or horses and away from where they will be fed. The breezier the conditions, the better. Stand upwind of the hay and use a dust mask, because mould is not healthy for humans either. 'Wetting the hay is probably the better option because once it's soaking wet, there's no way the mould will get in the air,' says Mr Coleman. Wetting will also wash away some of the mould so that hay not completely consumed during the feeding will, most likely, not have to be wet up again. When wetting hay, you should try to wet only as much as the animals will eat at one time.

Careful and observant feeding will minimise the risk of causing permanent damage to animals. A watchful and attentive eye is needed to be sure only quality, safe feed is given to your equines. A few extra minutes to check the quality of feed can avoid unnecessary digestive and respiratory problems.

DRY HAY

In Australia, dry years are more common than damp ones, particularly in the greater part of the country away from the eastern coastal strip. The philosophy in these regions is to store hay not, as in Europe, 'against a rainy day', but against the many dry ones. Pat Coleby, in her book, *Farming Naturally and Organic Animal Care*, gives the following suggestion: 'A tip many of us learnt in the last drought to stop wastage in our hard-won lucerne hay, which was always excessively dry by the time it reached us, was to resuscitate it. This we did by putting the bales out on wooden pallets the day before they were needed, cutting the strings, and pouring a bucket of hot water containing a couple of tablespoons or more of cider vinegar over each bale. They were then covered with bags and left until wanted. The vinegar ensured that it did not go mouldy in the time between treating and eating. The leaves would swell up and the wastage was minimal and the stock used every single bit of it.'

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SUBURBAN RESOURCES

by Donna Stubbings, Tannum Sands, Qld.

In suburbia resources for mulch and compost can be scarce – so it was decided to find ways to create our own for our suburban block of rock and clay. Initially we sheet mulched. Each morning we collected beer cartons (empty) from the local hotel, placed these on prepared ground and built up beds. It was with relief that I learnt about permaculture.

We collected newspapers – ours and anyone else's we could. After a couple of years we had a huge pile under the house. This was an obvious fire risk, so I had to use it. About this time LETS started up in the area and friends purchased a large mulcher as a means of trading. The mulcher was loaded on to their trailer and brought out from Gladstone. Three of us then spent hours feeding the monster paper and cow manure, bagging the finished product. My mum (visiting on holidays) kept us fed and watered. We were totally exhausted and filthy, so a mutual decision was reached – *never* again in summer.

As the years have passed, we have refined the process a little. We have an extra helper. Hubby built a large bin for the papers in the area in which we use the mulcher, and a large compost bin nearby for excess mulch. It's almost time again to convert the paper – we just have to empty the paper bin of beer cans and rubbish from passersby on the way home from the pub. Ah well, nothing's perfect.

Another idea for collecting mulch was using grass clippings. We didn't have grass (by choice), so we looked at the advantages of our position. The block was at an intersection en route to the tip. Hubby put up a sign: 'Grass Clippings Wanted Please'. The idea has worked very well, despite a few hiccups with council and complaints of the area being an 'eyesore' when the mound became too high. However, after some negotiation, and holiday time, the problem was tackled and the area is now, hopefully, more



Neighbours with excess grass clippings are only too willing to donate them to the gardening cause.



Feeding the monster mulcher paper and cow manure for hours on end was totally exhausting.

'aesthetically pleasing' to the complainants.

The clippings are placed in two compost bins – kindly built by Hubby – and

some are used in the chook house, much to the delight of the chooks. If clippings are left a while and dry out, I use them directly on the garden, but usually use

clippings fresh in the compost. Initially, the sign attracted the attention of vandals, so Hubby cemented it into a tyre and we've not had any problems since then.

A bonus of having all the paraphernalia at the top of the block has been meeting strangers who approach us for information, and of course we spread the word.

To create more compost, the chook pen acquired an addition – a large enclosed bin into which straw from the pen is shovelled on a regular basis. Grass, sawdust and other compostible materials are added and the chooks are left to 'play' in it. They love it. When it's ready, I sieve the compost, using one of Hubby's creations – an old folding chair frame covered in wire – and the compost is used to top up the veggie garden.

In our ongoing scrounge for compostible materials we have been lucky enough to befriend a couple who have an ostrich farm. They also run cattle on their 160 acre property, and make outdoor furniture. On a regular basis we spend a day with them, helping where we can with fencing, furniture making, whatever. We bring a share lunch and have a great day. In exchange, we take home cow manure (in winter), sawdust, and sometimes ostrich manure. This mutually satisfying enterprise has shown me how important it is to remain open to ways of developing a sense of community with people. It has exemplified the permaculture philosophy to me in a practical way and brought us all a great deal of enjoyment. Opportunities are where you find them.

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CURING COUGHS

by John Mount, Woodford, Qld.

Ever tried to sleep with an irritating cough, whether it's yours or someone else's? And have you found that just when you think it's safe to lie down, the cough only seems to get worse? A severe case might require extra pillows to elevate the head. Yes, trying to sleep in this position can be slightly uncomfortable, but it's better to be able to get a little sleep while upright than none when horizontal!

A drink of pure orange or lemon juice works very well: it seems to penetrate all those little cracks and crevices in the throat and although it will probably sting a little at first it certainly eases the cough. Another successful cure is a gargle with salt water, followed with a teaspoon 'chaser' of olive or other edible oil.

Aniseed (*Pimpinella anisum*) has pain relieving qualities which make it ideal for the relief of coughs and colds. It is also said to cure colic, as well as to eradicate intestinal bacteria. Boil one tablespoon of aniseed in 300 ml of milk for ten minutes and sip hot.

Pure fresh honey has antibacterial properties. Take a teaspoonful before retiring or during those nagging coughs. Various mixtures of honey and lemon juice, or honey and orange juice, diluted with water and served hot or cold, have been known to give relief.

Probably the best cure of the lot for an irritating cough is the one this writer has tried and highly recommends. Take a garlic clove and slice it up into tiny



pieces a little bigger than a match head. Chew one small piece until it is entirely masticated, then slowly swallow it. At first it will sting the lips, mouth, and throat, but then after a minute or two, voila! The irritation in the throat is gone. It seems that after the initial stinging effect, the garlic 'tang' becomes a painkiller. Unfortunately, the effect is rarely long-lasting, probably around 20 – 25 minutes at most. One consolation, however, if the garlic pieces have been taken throughout most of the night, by morning the cough should be gone, or should at least be well on its way.

Another idea suggested by some is the application of a hot water bottle or hot towel (not too hot) directly to the throat. It is said to ease any soreness or irritation, and to increase the blood flow, thus facilitating the healing process.

LABELLING

Look out for misleading suggestions of ingredients in products. An example of manufacturers hinting that products contain something they do not is a certain type of breakfast cereal – Froot Loops, and Frute Rings do not contain fruit! Those wishing to avoid animal ingredients should avoid products containing ambergris, castoreum, carmine, chitin, civet, collagen, elastin, fish oil, gelatine and animal fats.

EATING HABITS

According to the National Cancer Institute, in the US between 1970 and 1994, per person consumption of vegetables increased by 19% and grains by 47%. Fat and alcohol intakes are now lower than they were at the beginning of the 1990s. The bad news is that more than 50% of potatoes – the most popular vegetable – are eventually eaten as French fries (chips).

Reported in the *Hippocrates Newsletter*.

FODDER FORESTS

SHE-OAKS

by Vince Conlan, Binya, NSW.

We plant trees for windbreaks, shade, and stock shelter. They return nutrients to the soil, reduce salinity and provide wood, oils, medicines, flowers, fodder and food, but by far the most important reason is that they provide habitats for wildlife. While European tree species have their own merits, they do tend to attract European birds and rodents. Australian natives, however, will attract and provide habitats for our unique and increasingly homeless fauna.

In the last 200 years 70 percent of Australian forests have been cleared for agriculture, forestry and urban sprawl. Among the trees extensively cleared are the *Casuarina* and *Allocasuarina* (she-oak) species, which are the favoured food of glossy black cockatoos. As a result of this clearing, the distinctive race of glossy black cockatoos on Kangaroo Island is critically endangered, with less than 200 surviving birds. In the eastern states on the mainland of Australia there is a separate race of glossy blacks, existing in two populations of

less than 10,000 birds, which are threatened with extinction due to their dependence upon one particular source of food, the seeds of she-oaks.

Glossy black cockatoos are smaller than other black cockatoos and are distinguished by their soft drawn-out call and the absence of a distinctive crest. The males have flame coloured tail feathers, while the female's head is marked with yellow splotches and all young birds are spotted with yellow.

They tend to live in pairs or family groups and require eucalypt forests containing hollow trees for nesting and a plentiful supply of she-oak cones. The female lays only one egg per year and is fed by the male while she incubates it. After hatching, for a week or so, she broods the nestling continuously, but from then on only at night. Both the male and female then feed the chick in the morning and evening. Where she-oak stands are extensive, the birds appear to be resident all year.

In Australia there are approximately 52 species of she-oaks divided into

two groups of *Casuarina* and *Allocasuarina*. The term *Casuarina* was given because the leaves are said to resemble the feathers of the cassowary. These graceful trees were also described as the Australian pine because the needle-like leaves are similar to those of conifers, which



Above: Branch of river oak showing nuts – essential food source for glossy black cockatoos.

Left: Stand of river oaks planted as a windbreak for a Riverina orchard.

they are not. In fact, the leaves are really small triangular scales surrounding thin branchlets. They are, however, beautiful and make ideal ornamental trees as well as excellent windbreaks. River she-oak (*Casuarina cunninghamiana*) has become very popular as a windbreak for Riverina vineyards and orchards. The slender branchlets, when tossed in the wind, are said to deter fruit loving birds from resting and nesting.

The trees are grazed by stock, providing valuable roughage and a source of green vitamins in times of drought. They are a useful supplement to pasture, but are not digestible enough to provide adequate nutrients as a sole diet.

HABITAT

She-oaks are widespread across Australia. Species exist in arid, temperate and tropical zones on most free-draining soil types. They are generally all frost hardy and drought tolerant, but ask Greening Australia what species will grow best in your area.

PROPAGATION

She-oaks are easily propagated from seed. Collect cones after they have ripened and become light brown, but before they have opened. Place them in a paper bag or jar and wait. Eventually the cones will open and emit small seeds. Place the seed in well-drained potting mix in air-pruning pots. Keep them well watered, and plant out into the field when they are a year old, after having hardened them off for a couple of months. Harden the plants by exposing them directly to the elements and gradually decreasing frequency of watering and the amount of water given.

USES

She-oaks are used as ornamentals in gardens, parks and roadsides. They make excellent windbreaks for farmland and also provide fodder and food. In the Canberra region people ate the leaves and young cones of hill-oak (*Allocasuarina verticillata*). The Ngarrindjeri of Coorong (Lower Murray River) made shields, clubs and boomerangs from the wood. The timber of she-oaks closely resembles that of English oak and makes excellent ornamental items.

Right: Bull-oak also known as buloke (*Casuarina luehmanniana*), prefers heavy moist soils in an open sunny position.

PLANT MORE SHE-OAKS

There are a lot of good reasons for planting she-oaks, but by far the greatest is to increase food and habitats for our glossy black cockatoos. Suitable habitat for glossy black cockatoos is continuing to decline. Economic rationalisation, feral cats, and poachers may rid the world of this beautiful, rare bird, but I believe the revolution is just a pot plant away. Together we can make a difference. We don't need money, nor some great long-winded campaign, we just need more she-oaks.

BAREROOT SEEDLINGS

Thank you to all the people who have written, faxed or phoned with enquiries about fodder forests. Unfortunately, I have found that large quantities of bareroot seedlings of saltbush, tagasaste and orange wattle do not survive very well for long periods of time out of the ground. In fact, even overnight has an adverse effect on seedling survival rates. This means you need to be very wary of any unscrupulous nurseries offering cheap bareroot fodder shrub seedlings that can be delivered in the post. This is not to say that sending bareroot seedlings by post is a bad thing. Species that go dormant, such as fruit trees or grapes, can be bundled up and sent with no detrimental effects whatsoever, as can most small quantities of plants. For large quantities (1000 or more) of forage trees such as saltbush, it is too hard to keep the roots wet, and, as a result, the death rate is too high. Increasing the cost of packaging and the weight of postage, in order to



keep the roots wet, defeats the purpose of buying cheap trees. Furthermore, a recent report by the Department of Agriculture NSW, suggests that planting forage shrubs such as saltbush (100 plants per ewe, provided she doesn't have a lamb) will increase farm productivity. However, for a five-year return on your investment, they must be planted for less than 13 cents each, which is hard to do even when you grow your own bareroot seedlings. This means that for large-scale plantings direct seeding may be the only economically viable method. Remember, weed control is critical. Trees need a weed-free zone of one metre square to maximise survival.

For people seeking seed, try the internet or Greening Australia or look through *Grass Roots*. Goozeff Seeds at North Nowra, ph: 02-4422-6056, are excellent and as cheap as any.

Vince Conlan is a nurseryman, teacher and farmer at 'Gowrie', Binya 2665. Ph: 02-6968-3310, work/fax: 02-6968-3245.

SO MUCH TO ENJOY

by Mary Hoddinot, Raymond Island, Vic..

Some years ago (GR 101), GR published an article I wrote about our problems and difficulties when we first started off on the Island. I thought readers might by now be interested in an update on our island lifestyle.

We had a major fox baiting programme on the Island. It most definitely eliminated the foxes, but unfortunately, our silly mutt – Bert the Labrador (labs are well known for being greedy) – ate a bait and died.

Still, three years later we have no foxes but a super-abundance of wallabies and rabbits. We have always had buckets of water around the place, mainly in case there should be fire, but they are always maintained full. The birds and the swamp wallabies know where the buckets are, and it's not unusual when I take Sally for a walk that we see several birds on the rim of a bucket, or a wallaby with no fear of us, but the urgent need to drink.

We like to think that we saved the lives of animals through the drought, though on a couple of occasions the buckets were overturned and a thirsty wallaby died not too far away. We have replaced the buckets with deep, wide-based bowls that cannot be overturned.

Although the drought has broken, things are not the same here as they have been in the past. The rabbits have dug holes everywhere and they and the wallabies have eaten all the new succulent plants that have emerged with the grass, including the native orchids.

It is mating season for the birds. The mountain ducks have bred well because the dams in the neighbourhood are full. The magpies have nested as usual, but there are no willy-wagtails to tease them as the magpies tease people. I've not seen a pardalote, whether striated or spotted; the white eared honeyeater is missing, as are the superb blue wrens. What we do have for the first time is a pair of butcher birds and a pair of red wattle birds.

Crimson and eastern rosellas and rainbow lorikeets are in about the usual numbers, but we have a much enlarged representation of common bronze-wings. We also have two galahs which have been faithfully coming twice a day to the seed bowl. Galahs are not common on the Island, though there are plenty on the mainland. Two tawny frogmouths have turned up on the same 'perches' as they used last year.

We endure 'mayhem' from time to time. Jessica (the cat) is wary of stalking birds as we taught her a couple of shock lessons. Nevertheless, we do not mind her catching rabbits. She brings them into the house through the cat flap at any time of day. The rabbits are brazen and do not restrict their activities to dawn and dusk. It's okay if Jess has killed the rabbit. She eats the head and front legs and the dog has the rest. The problems arise when the rabbit is still alive. Imagine one rabbit, one cat and one Labrador chasing around a very open plan house – the object being to

catch the rabbit. Rabbits can get into very small spaces. We have had to shift the fridge, the freezer, the washing machine, and kitchen cabinets, to catch the rabbit. In fact, last week in trying to find the latest catch, we found a mummified one behind the freezer – that's what the smell was! I cleaned everything – I thought!

We are not far from where the East Gippsland floods were – in fact the ferry to the mainland couldn't run for several days – and the land has since become very lush. It's good to look out of the window to see green grass. At the same time we have to think of exercise. Mowing and slashing wait for no person. The trouble is that this woman has to pick up the fallen branches from the trees to enable the slasher to move freely. This really annoys the mosquitoes which are having a lovely rest under the growing bracken fronds.

We do not live in Melbourne, but in a recent ten-day period we had frost, temperatures of 30°C, gale-force northerlies which dried up everything, thunder, pouring rain to mess up the newly graded roads, and four days of marvellous weather consisting of cool mornings and evenings and sunny days with eggshell blue skies reflected in the calm lake. The swans are bringing out their little tawny babies. If they can't keep up with mum and dad, they 'hitch a lift' in the parent's wing feathers.

Isn't it good to be alive? Isn't God good to give us so much to enjoy?



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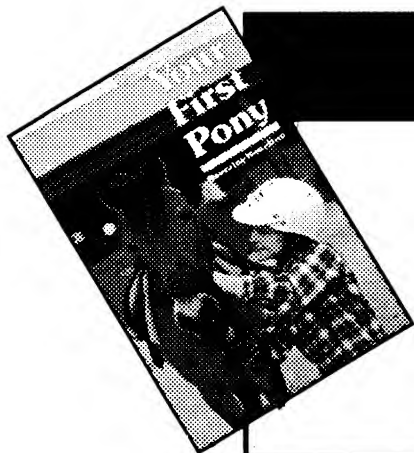
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COPING WITH CLAY

by Michael Gale, Kin Kin, Qld.

Clay is a problem for the gardener, especially when quick results are called for. While we accept that heavy soil can be greatly improved with toil and time, the latter is often in short store, particularly for those of us who rent. Landlords and their agents are usually hesitant to offer a lengthy lease to new tenants, no matter how good their references. The lease may be extended later, but we can't be sure of that until it transpires. In the meantime, we still need a vegetable garden.

When relocating, for whatever reason, compost and manure (great clay breakers) are usually left behind. If the soil on the new block happens to be clay, as it is in our case, we're faced with an immediate dilemma: how much can we afford to outlay to condition the soil? For us, like most people striving to scratch a living from the land, the answer is usually the same – very little.

It takes months to amass enough organic material for soil improvement, and gypsum is expensive. Whether we rent or own our land, the first few months are ordinarily a period of low income and high output. Stretching our finances with a vegetable garden becomes a necessity.

Cath and I struck clay when we migrated south to Kin Kin. Previous moves had always provided us with, at least, some areas of workable soil – this farm was a challenge. To say we had 'limited capital' would be a major understatement. We had no option but to utilise what the block could offer.

A few hours after digging one small bed in the heavy soil, we realised conventional gardening wouldn't work in this situation. The sun promptly baked the clay. We noticed though, the ground bordering our instant desert was still moist. It was then we decided to experiment by digging a separate hole for each plant. We thought of it as a variation on growing vegies in pots.

We knew direct sowing in this soil would be a waste of time, and seed, so we started our seedlings in punnets. We usually blend our own seed raising

mixtures but, owing to the lack of raw materials, we had to invest in a generic mix. I added a trace of blood and bone to develop a strong root system on the plants, giving them a better chance of survival in the clay.

Our trials began with zucchini, cucumbers, dwarf beans, tomatoes, sweet corn and lettuce. The punnets were put in the shade, under glass, to retain the moisture. The germination rate was excellent, and the seedlings grew quickly. They were thinned out to one plant per punnet section as soon as possible. A vigorous root system was essential to our plan and we didn't want to risk any damage by separating the young plants when they were further developed.

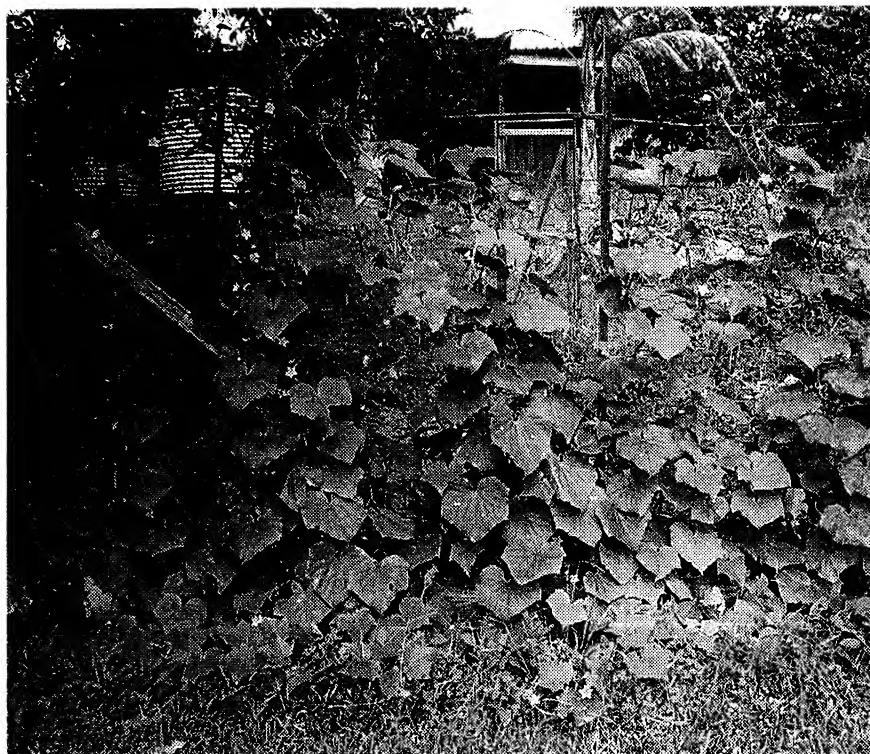
We decided against preparing the holes too soon before planting, having seen the results of the sun on this soil. While waiting for the seedlings to grow, the grass around the house was mowed and the clippings spread out to dry. They would later be used as a

mulch around the plants.

As one would expect, the zucchinis and cucumbers reached the transplant stage first. They were well developed, with roots pushing out through the drainage holes in the punnets. It was time for planting. Fortunately we'd received a lot of rain, which softened the heavy ground.

Making use of the natural slope of the land, we selected areas in full sun for our plants. An existing wire netting fence would provide future support for the cucumber vines. A test hole was made first, to determine the condition of the clay. Wet clay being too plastic to break down and dry clay almost unbreakable. The ground though, was damp – ideal for our purpose.

I proceeded to dig out the holes. Cath crumbled up the earth, and mixed in blood and bone, together with a handful of wood ash to boost the potassium level. The fertilised soil was returned to the holes and the seedlings planted.



Cucumbers in clay soil scrambling over a netting fence. Results were encouraging.

In front of each plant, a shallow channel, about twenty centimetres long by five centimetres deep and wide, was cut to allow excess water to drain away. The plants were then mulched with the dry grass to prevent recompaction of the clay through heavy rain or watering. As the rest of our seedlings attained the transfer phase, we followed the same procedure.

The findings? In a word – encouraging. All in all, the work was no more time consuming than conventional gardening. Our only failure, and it was dismal, were the tomatoes which, with-

out exception, wilted and died. The other plants though, all cropped well.

Our major concern, initially, had been the obvious potential for root rot, brought on by waterlogging. However, we received extensive rain during the growing period of these plants, which probably accounted for the dismal performance of the tomatoes, but resulted in no further loss.

While I don't see the described method as a replacement for long-term soil improvement, it may be a viable stepping stone for those who need both economical and rapid results.

SAVE BATHROOM WATER

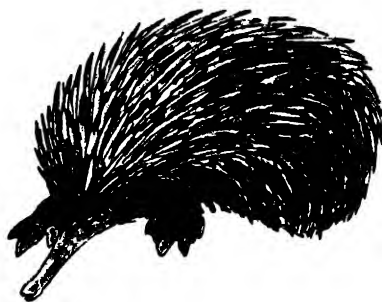
Between sixty-five percent and seventy-five percent of the indoor water we use every day flows through the bathroom. Flushing the toilet is the biggest domestic water user. Install a low-flush or dual-flush cistern, which cuts water use by fifty percent. Mend cistern leaks. A daily shower rather than a bath saves about 420 litres of water a week. Install water-saving shower heads, using up to seventy percent less water. Share bath water or reuse it to water plants or wash the car. Don't run the tap when brushing teeth.

BEWARE OF THE TACHYGLOSSUS!

by John Mount, Woodford, Qld.

Loud raucous barking from my dog in the wee hours of the morning could mean only one thing – an intruder. Probably either a wallaby or a wombat I thought, as I sleepily made my way to the front fence where I could see my dog in the torchlight, growling and pawing at the earth, quite upset at this creature that had trespassed on 'his' turf. I shone the torch at the base of a tree and was just in time to see the back of the creature as it wiggled its way beneath the soil at the bottom of its own self-dug hole. One look at those long sharp spines on the back of the animal told me I was going to be busy with a shovel for at least the next half-hour.

Ignoring the two animals would only result in continuous barking for the rest of the night. Traces of blood on the dog's nose meant he had already discovered what the spikes were for, so there was no way he was going to forget this particular intruder in a hurry. After digging another hole beside the little fellow, I placed therein a large plastic bucket and, using the flatness of the shovel as a lever, I began 'coaxing' him into the container. The tenacity of the creature was amazing. He had an almost vice-like grip on terra firma and it took what seemed like ages to get him into the bucket.



As I was busy struggling with the shovel, I remembered reading somewhere about a zoologist who had left one of these spiny anteaters locked in his kitchen overnight. Next morning he awoke to find tables, chairs, and other pieces of furniture, including a heavy dresser, all gathered in the centre of the room. Apparently, one of the creature's habits is to root around inquisitively with its snout, and the snout, coupled with the echidna's amazing strength, becomes like a powerful fifth limb!

Despite its dangerous spiky exterior, this creature is normally harmless. It's known as *Tachyglossus aculeatus*, spiny anteater, or echidna.

In recent times researchers have found small electroreceptors in the snout of the echidna, thought to be a means of detect-

ing tiny electric charges of grubs, worms and ants beneath the soil.

There are two types of echidna, the short-nosed and long-nosed. The short-nosed variety ranges from Tasmania through Australia and into New Guinea. It reaches up to 50 centimetres in length (including the tail) and 6.5 kilograms in weight. The long-nosed zaglossus is normally confined to New Guinea.

I carried my bucketload of echidna into the next paddock, in the direction it was originally headed, and safely released it. After making a loud snuffle, it shook itself, tossed me a look of disdain and waddled off into the night.

TREES FOR A GOOD CAUSE

Landcare Australia have set up a fundraising programme designed to encourage more trees. A tree can be planted in a national Landcare forest or state grove as a gift, or memorial. A portion of the proceeds from each will go towards Landcare. For \$29.95 a native tree is planted in a degraded area of your state and you receive a beautiful card and CD of environmental music. For more information about Trees With Love, contact 1800-638 733.

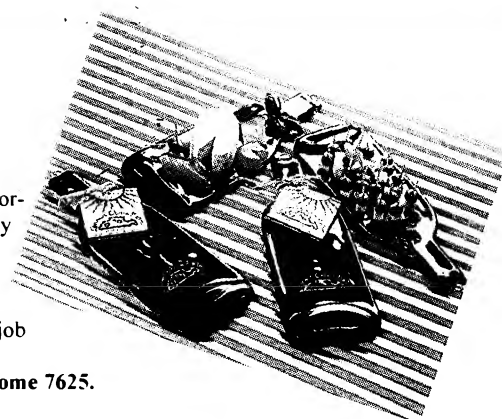
ROUND THE MARKET PLACE

We hope you enjoy this feature introducing new products relevant to readers' lifestyles and interests.

INNOVATIVE GLASS RECYCLER

Kali Balint, founder of The Flat Bottle Company began his business in an effort to recycle a portion of the many empty wine bottles that end up as landfill in Broome, his home town. Presently he recycles 15,000 bottles each year by flattening them and transforming them into unique Gourmet Cheese Platters. These are proving immensely popular in the homeware market and he has won two business awards in the last twelve months for the company's innovation and contribution to the environment. The platters are around \$19.95 and are doing a wonderful job towards encouraging global sustainability while looking great in the process.

For your nearest stockist please contact: The Flat Bottle Company, PO Box 2303, Broome 7625. Ph: 08-9193-7593.



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At last, a hamburger that tastes like one but that will improve your health! So says the manufacturer of the Zoglo's Vegetarian Choice range, which includes burgers, hot dogs, schnitzel, kebabs and 'chicken' nuggets. Instead of meat, the range uses vegetables, herbs, spices, fibre, soy protein and grains – all friends of the heart. Obviously the range does not contain preservatives or cholesterol, has no added monosodium glutamate and is high in vitamins and minerals. The food has been precooked and frozen, but is ready to serve in minutes. This is a great kosher and halal meat substitute, low in fat, using soybeans that have not been genetically modified. You can find Zoglo's Vegetarian Choice range in the supermarket freezer and should be able to feed four people for under \$10.

For more details contact: Prema Organics, PO Box 492, Narrogin 6312. Ph: 08-9881-4291.

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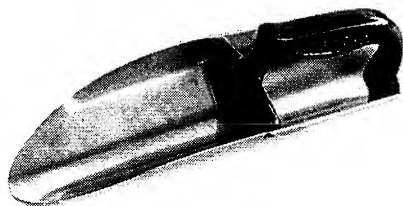
Bio Paint Stripper is a new, safe alternative to conventional paint and varnish removers. The product was developed in England and is produced under licence by Bio Products Australia. It won a Millennium Product Award in the UK. Most common solvent strippers use methylene chloride, phenol, and other chemicals that have been associated with skin burns, and the fumes can cause other severe health problems. Methylene chloride has been classified as a Class III carcinogen within the European Community. In a number of European countries paint strippers containing methylene chloride are either kept under lock and key or, in the case of Sweden, banned. Australia is one of the few countries where this solvent is still available on open DIY shelves. The new Bio Paint Stripper is water-based, free from these potential health risks and does not contaminate waterways. It is easy to apply, clings 100 percent to vertical surfaces, and is available in one litre and four litre sizes.

For more information please ring Bio Products' customer care line on 1800-809-448, or write to: Bio Products, 25 Aldgate Terrace, Bridgewater 5155.

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For more information contact: Counterpart Engineering, Lot 3 Wombeyan Caves Road, Mittagong 2575. Ph: 02-4878-5361.



SOME EXCITING ALTERNATIVES TO USING PLASTIC

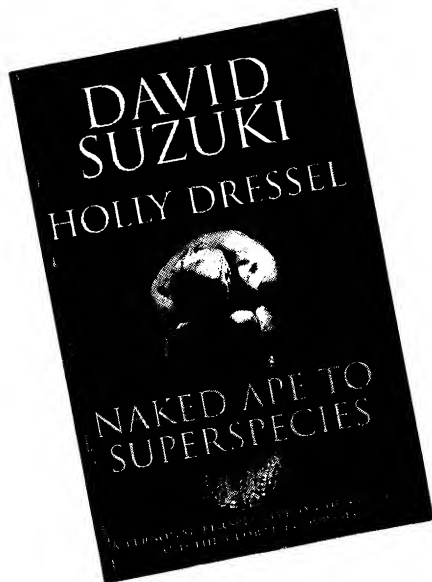
EcoEarth Technologies is a small company which has gone to considerable lengths to form alliances with larger companies that have been trialling or researching alternatives to plastic. As a result, Australians may soon have access to a range of products that are 100 percent biodegradable or compostible. All these products help provide a valuable solution to the growing environmental problem we have with discarded plastic. One product currently available that might interest *Grass Roots* readers is plant pots which decay and fertilise the soil when you place them in the ground with the plants they contain. Given enough interest, soon to come will be: disposable nappies with a biodegradable outside plastic film, onion bags that rot away in the compost heap and agricultural twines that are made from a 100 percent biocompostible product, rather than polypropylene that gets caught in farm machinery or wrapped around the feet of your sheep or cattle.

For more details of the myriad products available contact: EcoEarth Technologies, 1565 Barrabool Road, Gnarwarre 3221. Ph: 03-5265-6009.

Recent Releases

On this page we present information about newly published books that we feel will interest readers, with details of prices and publishers. We no longer distribute books for other publishers so if you're interested in buying any of the books described here, please order them through your nearest bookstore.

★ FEATURE TITLE ★



NAKED APE TO SUPER SPECIES

David Suzuki & Holly Dressel

World renowned environmentalist, David Suzuki, and journalist/researcher, Holly Dressel, have joined forces to produce a compelling and comprehensive insight into the impact of human activities on the environment. They describe in authentic detail the potential (if not yet actual) breakdown of the Earth's life support systems as we ever-increasingly reduce the biodiversity necessary to keep the planet, and ourselves, healthy and sustainable. Chilling accounts of the demise of the Pacific salmon as a result of environmental degradation and the toxic effects that pig farming in North Carolina is causing in Chesapeake Bay are but two examples cited of what happens (and will continue to

happen with increasing regularity if we do not radically change our interactions with the environment) when ecosystem services are overloaded. Other detrimental influences that are examined include politics, globalisation and economics, with much being written about their effects on society as well as on the environment. This is a compulsory, if depressing, read for anyone interested in the future of our planet. It clearly asserts that if we do not radically and quickly change our ways, the planet will continue, albeit with an altered ecosystem, all the better for our absence.

P/b, 332pp, Allen&Unwin, PO Box 8500,
St Leonards 1590. Ph: 02-8425-0100.

RRP: \$24.95

WINNING THE WAR ON WEEDS

The Essential Gardener's Guide to Weed Identification and Control

Mark A Wolff

This is a useful guide to understanding and controlling weeds. It is divided into three sections with the first and most substantial section detailing the weeds themselves. A colour photo with an outline of the weed's origin, distribution, dispersal, flowers, fruit and leaves accompanies each of the 59 listings. The weeds are listed in groupings: herbaceous plants; shrubs and trees; plants with bulbs; corms and tubers; vines, creepers and trailing plants; and grasses. The other two sections look at hand-weeding methods and using herbicides respectively. For simplicity, these control methods are again outlined by weed grouping. There is a helpful glossary, detailed references and a useful index at the back of the book.

P/b, 112pp, Simon & Schuster Australia, PO Box 507, East
Roseville 2069. Ph: 02-9415-9917. RRP \$24.95.

THE SEARCH FOR AN AUSTRALIAN PARADISE

Bill Hornadge

This is an entertaining book on an original subject: the search by three centuries of Australians for a place of peace, plenty and beauty to call their own. Many of the sometimes-successful ventures outlined are of a communal nature: the 19th Century utopian experiments such as Australind, or the Queensland Co-operatives, or 20th Century attempts to establish Jewish settlements in the Kimberleys. Individual stories also make absorbing reading, for example Cedar Bay Bill's dealings with visitors to his patch, or Bob Hawke's ideas for dealing with youth unemployment by starting Kibbutzim in Australia.

P/b, 292pp, ETT Imprint, Box 1388, Bondi Junction NSW 2022.
Ph: 02-9387-8672. RRP: \$16.95.

THE BOOK OF CHALLENGES

Jackie French

Have you ever been bored? Well, Jackie French has come up with masses of suggestions that you might like to consider. This list of challenges is probably going to appeal to younger audiences, but there are useful suggestions for everyone here, from getting involved in FM community radio or Clean Up Australia, to learning hang-gliding or how to play a musical instrument. Some suggestions do not necessarily involve big challenges, maybe reading to a blind person or helping the RSPCA with some of the animals that come to them. The listing is logically set out, with different activities placed under a relevant category: physical challenges, scientific challenges, the arts etc. Relevant contact details and typical costs involved are provided, together with what to expect and how to go about getting set up or obtaining more information.

P/b, 193pp, Angus&Robertson, 25 Ryde Road, Pymble NSW
2073. Ph: 02-9952-5482. RRP: \$10.95.

THE AUSTRALIAN VEGETABLE GARDEN

What's New is Old

Clive Blazey

Material for this book took three years to research, with growing trials comparing over 500 heirloom varieties with modern hybrids. Heirlooms were superior in yield and length of harvest to commercial hybrids and the comparisons are outlined in the text. Gardeners are shown how to grow a year's supply of vegetables in just 42 square metres of ground using a 'mini plot'. A wide variety of vegetables is outlined, many illustrated in colour, together with details on preparation and management, varieties available, sowing, harvesting and yield. Soil, temperature and seed sowing are also covered in some detail.

P/b, 126pp, New Holland Publishers, 4 Aquatic Drive, Frenchs
Forest NSW 2086. Ph: 02-9365-8448. RRP: \$24.95.



DOWN HOME ON THE FARM

by Megg Miller.

We're luxuriating in a rather old-fashioned autumn. Mornings are cool with a hint of moisture in the air, days are hot, far too hot, and most evenings are such that a sweater is required when working outdoors. Happily too, we've enjoyed a couple of good falls of rain and so the farmers are optimistic of a good sowing season. The antiquated practice of burning stubble is still practised locally and each evening when I return home the skies are still alight with fire and a pall of smoke hovers low. A few paddocks are already under cultivation, tractors crawling slowly across the brown acres. While it's been lovely to have the harsh summer moderated by the falls of rain, the activity in paddocks, and in particular burning off, has driven the field mice from their homes and to seek shelter earlier than usual. They're creating a nuisance in and around buildings, though 'nuisance' hardly describes the ravagement and mess they are making.

I couldn't believe the presence of telltale droppings when first observed back in February. Surely it was too early for mice; no immediate action was taken. The packets of dried pulses and flour were safely enclosed in the old but trendy cupboard with perforated zinc plate sides. The bag of nuts and biscuits on top of the cannisters were surely out of reach of all but the most adventurous mice. As weeks went by a distinct fuggy mouse smell in the kitchen became discernible and then overpowering. Mice droppings appeared in the trendy cupboard. Had I left the door open, allowing easy entry to the rampaging rodents? As there were irritating rustling and scampering sounds in the cupboard, I located last year's partly gnawed mouse block and popped it inside the door. Even more droppings appeared and the rustling hadn't abated at all. I gloved up, got the bin and threw out all the spoiled packs of buckwheat pancake mix and brown rice flour. The pasta too, had been a favourite, but the flaked coconut was clearly irresistible as it was scattered everywhere. The vacuum cleaner took care of that and with grim determination I tackled a second cupboard, cleaning and rearranging its



Site for the vegie garden in September '99 and a few months later, abundant growth, thanks to lots of poultry rakings.



contents. Half a day had passed, but it was pleasing to know the smell had gone and the problem would soon be under control. I hastily sited a few bait blocks around the room as well as in the cupboards. These had disappeared by morning, and worse, there were fresh droppings in the mouse-proof cupboard. The manure multiplied over the next few days and I could hardly keep up with the supply of bait blocks. It finally occurred to me that the cupboard couldn't possibly house an unending number of mice, they had to be getting in somehow. Sure enough, they had gnawed or forced their way in at one corner. The

cupboard was far from mouse-proof.

A second smell had emerged – dead mouse. Ghastly. I've been too busy with deadlines to spare time to disassemble everything in the kitchen, clean away remains and wash and scrub shelves. At the same time, trips to town have brought forth horror stories of rats on the loose and frequenting and dying in ceilings. I'd rather have my smelly mice. Actually, the kitchen isn't so bad now, the odour has relocated to the bathroom.

The mice there came to light rather dramatically. Suni had stayed the night and was in the process of cajoling the shower to run hot. Shivering in the cold

spray she called for me to get her a washer. I reached into the bathroom cupboard and grabbed one, screaming with surprise when a mouse leapt out on to me. Surprised by my behavior Suni jumped and screamed too. The water obstinately remained cold – the cylinder had run out of gas – and we were shaken up by the thought of mice everywhere. It's going to be difficult to get Suni to return.

I know the mice are marching into other rooms, I've heard scrambling under the bed in the wee hours of the morning. Still, I console myself, it's not rats. Brooding on the subject in the toilet recently, the midday peace was shattered by noisy gambolling across the house roof. Suddenly a possum leapt on to the pergola and down a post, rushing into the shed alongside the toilet and engaging in a most ferocious fight. Space must be at a premium in their living quarters and for some reason he was thrown out. I felt sorry for the inmate next door who had this reject foisted on him. Sometimes the rural idyll stinks, I decided, thinking longingly of the sterility of a motel room.

The months of hot weather have been very trying. The pig has spent her days comatose in a puddle of mud in her house, loath to move even for food. The dog also has been unwilling to move, reluctantly opening one eye to watch every movement around the place. Fortunately she's been able to drag herself out to guard the poultry at night. The geriatric pair of pigeons were affected differently, one actually laid an egg. I'd been expecting them to pop off when the temperatures got around 40° C but no, despite their advanced age they've lasted through another hot summer. Not all the chooks were so lucky, a few succumbed and dear old Merle the sheep layed down and looked me in the eye as though to say do the deed and make it quick.

Feeling rather sad I put her down and then realised that despite the late hour I would have to take the body up to the trees at the end of the holding before she became still and uncooperative. She was too big for the old bee box trolley so I brought the van down. How would I get a large dead sheep up into it? I could get the front legs and head up, but when I turned around to get the back legs, the front would roll back down on to the ground. I reckon

her old sheep's spirit was being deliberately naughty – by the time I finally got the body in I think it had been in and out of the van a number of times. Believe me, it's not easy getting a big limp body up into the back of a vehicle on your own. Any remaining sad feelings were soon replaced by laughter at the absurdity of the situation. Nearly ten and a half years is a good life for a sheep. It's been wonderful too, as I haven't had to obsessively check and bolt the doors of the turkey sheds.

My salvation has been the garden; it's been so nice to be able to escape the rodents and possums and chooks and geese and turkeys and drive over to green environs. I've been picking tomatoes and the occasional pepper and eggplant, lots of silver beet, a dozen strawberries, two raspberries and heaps of herbs. The broccoli I planted at Christmas is ready to harvest, which is scary as it should take much longer to grow and develop. I also put in globe artichoke seedlings in December and there are some delicious looking heads ready to be cut off. Beans have been a disaster, a surprise as the borlotti variety has always been so hardy in the past. The new vegie garden is in quite a windy spot so the growing plants may have been buffeted about. As the soil is slowly being built up, it's not as deep as it could be. Lots of the plants for this first season are shallow rooted.

Of course there are never enough hours in the day so I don't get to tend the garden as often as I'd like. The heavy mulching paid off in February when temperatures were high and visits few. The cabbages are in and growing well, and the first crop of cauliflowers have been sown. Lucy, my Italian friend, shared seed from her cut-and-come-again broccoli, the seed will need to go in soon. And I've got to get some soil bagged up and moved over so carrots and parsnips can go in. Raking and bagging the poultry spoils has become a regular task and the resulting product has boosted vegie production. Soon the turkey sheds will have to be cleaned out, but as the mixture there is very rich it will have to be composted first. Because I allowed room for expansion in the garden compound some of this manure can go on to beds for spring planting. There is one little hiccup other than lack of time, I'm using old bricks placed on the

diagonal to edge garden beds and as they have to be cemented together, progress is slow. Ideally I'd like to get in there and do it all in a weekend, but my body has a different viewpoint – little bits regularly. It's frustrating enough having such limited time in which to do the important things, it's doubly galling when parts of your body have a mind of their own. Complaining recently about this to a friend they said, 'Megg, you're getting old'. Maybe there is some truth in that, but by comparison I didn't do anything much when I was young. Perhaps the old body isn't doing so badly after all.

PENPALS

My name is Theresa. I am 11 years old. I live on a farm. I like swimming, reading and animals.

Theresa (GR138)

C/- GR, PO Box 117, SEYMOUR 3661.

I am looking for a grandmotherly lady aged 60 – 95 to be a 14 year old girl's grandmother penpal. I am home educated and play the piano and violin/cello. I enjoy classical music, good books, cooking and sewing. Looking forward to hearing from you.

Olivia (138)

C/- GR, PO Box 117, SEYMOUR 3661.

I am an Indian guy 37 years old. I like movies, music, outdoors, travelling. I am willing to write to males and females any age. All letters will be answered.

Edwin Raj

23 Camlet St, MT GRAVAT EAST 4122.

Hi, seeking frequent, avid writing fanatic to encourage friendship by correspondence for a happily married 33 year old family man, interested in gardening, recycling, community work and creative writing.

Glenn, 'Rhubarb Farm',

29 London St, Richmond,

Christchurch, NEW ZEALAND.

Wanting green and bluey-green-eyed penpals, 11½ or 12.

Hannah (138)

C/- GR, PO Box 117, SEYMOUR 3661.

Hi, I am Danielle. I like camping, animals and swimming. I have a pet chicken. My age is six.

Danielle (GR138)

C/- GR, PO Box 117, SEYMOUR 3661.

Hello, my name is Katrice. I am a 22 year old single mother who enjoys many interests including reading, writing and cross stitch. I would love to write to anyone, male or female, aged between 2 and 102, living anywhere. All letters will be answered so pick up that pen and write!!

Katrice Watts

PO Box 218, MILLMERAN 4357.

GRASSIFIEDS

HOW TO ADVERTISE

Use the form provided below, or a separate sheet of paper, to print your advertisement clearly, **not in block capitals**, including correct punctuation. If you have more than one ad please print each one on a separate page. Remember to include an address or phone number in your advertisement. Count the number of words and multiply by 80 cents per word (phone number counted as one word) to work out the total cost of your advertisement. Send **with payment** to Grass Roots, PO Box 117, Seymour 3661, before the deadline and we'll include your advertisement in the next issue of Grass Roots. **Deadline for GR 139 is 30th April, 2000.** Please do not fax ads.

Sender's Name For issues no/s

Address Classification

..... Postcode Cost

Cost for advertisements is 80c per word

PROPERTY FOR SALE

NEW SOUTH WALES

TWO-BEDROOM CABIN, 80.3 ha in picturesque valley surrounded by nat pks, 45 mins Merimbula airport. Electricity, ph, sewerage, fully fenced, part irrigated pastures, 180 wine grapes, orchard. \$172,000. Or, 40 ha fenced \$52,000. Ph: 02-6496-7009.

WOMBAYAN CAVES AREA, 600 ac, comfortable solid brick home, totally equipped for fully self-sustainable lifestyle! Located in tranquil valley with waterfalls & swimming holes, 2½ hrs to Sydney. \$219,000. Ph: 02-4284-4074.

SOUTH COAST, NERRIGUNDAH, private 20 ac retreat, 1 b/r mud & stone cottage, shed, dam, crk. \$89,000. Ph: 02-4473-5381.

NEAR TUMUT, NSW, 10 ha for sale, lovely views, provision for part to be subdivided, rural-residential. \$125,000. Contact: Stubbs Real Estate, ph: 02-6947-2266.

BUNDARRA, approx 70 km SW Inverell, 115 ac, good access, power, ph avail. Sloping land with crk, spring & fully fenced. \$29,000. Plus 130 ac grazing land, fenced, crk, 2 dams, stockyards & roomy 3 b/r home in excel condition. \$95,000. Pat Clerke R/E, ph: 02-4578-1940.

MAKE A SMART INVESTMENT in village real estate. This property of 4 divided blocks, a 4 b/r home surrounded by native trees, & long-term tenants, is in Copmanhurst, a quiet village with pub, school etc. Just a short walk from beautiful bluffs and gorges that begin the 100 km Clarence River estuary to Yamba. \$105K. Owner: Mark Merritt, 27 Dorrigo St, DORRIGO 2453. Ph: 02-6657-2980.

BARRABA, 127 ac, bush block, partly fenced, 20 mins to town, good rd, near Mt Kaputan Nat Pk. Spring-fed property. \$30,000. Ph: 02-6782-1322.

CORINDI, 40 km Grafton/Coffs Harbour: timber cottage on 1.4 ac, polished blackbutt floors, high ceilings with fans, 3 b/rs, 2 bathrooms. Own water, solar HWS, 36 sq metre workshop & more. Surrounded by bush & berry plantation, rural but not isolated, 8 km to sea & shop. Spacious, safe living. \$145,000. Ph: 02-6649-2345.

RAPPVILLE, ONE HUNDRED ACRES, 2 b/r dwelling, ph, lge shed, crk, peaceful, 14 km off highway, \$75,000. Ph: 02-6644-8100.

BARGAIN KYOGLE SHIRE, 5 ac, power, ph, good neighbours, but privacy. \$19,950. Ph: Kevin, 0401-014-863 after 9am.

NYMBOIDA, TWENTY-FIVE ACRES, 44 km Grafton, frontage on Nymboida River. Van, sml sheds, covered work areas, 1000 & 5000 gal tanks. Orchard with 170 f/trees. Includes 4WD tractor. Ph: 02-4392-5102.

UKI MOUNTAIN RETREAT, unique 14 ac share, Mt Warning views, r/forest, underground power, spring water. Rolands Crk boundary. Unapproved s/c shed, building permit avail. Secluded & only 5 mins walk to Uki village, 25 mins to Gold Coast. Vendor finance on ½ deposit. Best location & value in Tweed Valley. \$145,000 ONO. Ph: owner, 02-6679-5430.

ORGANIC PRODUCE POTENTIAL, Tumburumba, 25 ac red volcanic basalt, great for spuds, spring water – 30 megalitre licence. Local landmark earth (walled) 3 – 4 b/r cottage, 2 fireplaces. Near snowfields. \$159,000. Ph: 0418-679-433.

INVERELL, NSW, 200 ac, tall trees, giant rocks, perm running crk, absolutely fabulous retreat, off the beaten track. \$95,000. Ph: 07-3262-6050.

SECLUDED, 1700 ac property on nth coast NSW hinterland. Over one km frontage to scenic fresh water river with big waterholes, nat pk at back bndry, no power, ideal wilderness retreat, perpetual lease, 4WD incl. \$118,000. Adjoining 1300 ac avail \$84,000. Ph: 02-6651-3469 AH.

MID NORTH COAST, TWELVE ACRES, mud brick solar home, crk, pump, generator, 20 mins to Macksville, secluded, surrounded by state forest on all sides, great organic farming opport, needs someone to love it. Ph: 02-9651-2565.

HISTORIC PATERSON, 5 ac + rural residential blocks on banks of pristine Paterson River. Platypus, echidna, goannas, wallabies & abundance of bird life, lge trees selectively cleared. Magnificent views. From \$98,000. Maitland 15 mins, Newcastle 45 mins, Sydney 2 hrs. Brochure & to inspect ph: 02-4938-9520.

NEW ENGLAND TABLELANDS, NSW, Glen Elgin district, 41 km NE Glen Innes, 100 ac, natural forest with clear running crk, peace & privacy. Block faces south & backs on to Butter Leaf State Forest. \$39,000. Ph: owner, 07-5465-4091, evenings please.

WOOLGOOLGA, lge 3 b/r older style house ¾ ac block, ocean & reserve views, trees, 3 mins drive to beach & shops, 15 mins to Coffs Harbour. Take over tenants or move in yourself. I work in Queensland and must sell, make an offer around \$88,000. Jutta, 07-4093-2733.

GRASSIFIEDS

PROPERTY FOR SALE

NEW SOUTH WALES

UNIQUE UNSPOILT FREEHOLD, northerly aspect bush block of 250 ac with a 40" r/fall in high country with a temperate climate. Good soil & a crk at the base of a valley rising up to high points of 990 m from which there are great views. All covered with a diverse range of native timber. This block is very private, peaceful & tranquil & is fully fenced, dual occupancy allowed. Tamworth 130 km. \$60,000. Ph: owner, 02-6783-1446 AH.

ELANDS, 2/3 share in 100 ac, many building sites, zoned rural, good soil, perm water. \$48,000 ONO. Ph: 02-6286-2617, 0412-884-042.

1000 ACRES OF LAND at Boonoo Boonoo, NSW. The site chosen for the present World Rainbow Gathering. Five springs rise on the land, 4 1/2 km of river bndry, natural bush, open paddocks, high hills & hidden valleys. Will professionally grow vegetables, grapes, stone fruit, soy beans etc. \$400,000 ONO. Ph: 02-6685-9685.

NAMBUCCA VALLEY, NSW, 177 ac, lge 3 b/r timber Queenslander, lots of fruit & nut trees, beautiful garden, perm river through property, swimming holes, r/forest, organic for 20 yrs, currently running cattle. \$280,000. Contact owner, 02-6564-4067.

SELL OR EXCHANGE, suburban home in Newcastle, valued at \$120,000, for a few ac on mid-nth coast, Scotts Head area preferred. Must have living quarters & enough spare for garden & livestock. Prefer subtropical climate & proximity to sea. Brian, ph: 02-4951-3285.

TAMWORTH DISTRICT, nth at Watsons Creek, imagine no traffic, mtn & valley views, native trees, real privacy, spring-fed dam, elect & ph avail. Build your dream home & create your own lifestyle on your 104 ac. \$36,000. Ph: Bruce Kneipp, 02-6766-1666.

MICHELAGO, 45 mins to Canberra, 450 ac, 3 b/r house, 3 room separate building, all in beautiful surroundings, lots of bush for privacy, running free range hens. WIWO. \$360,000 ONO. Ph: 02-6235-9008.

NORTH NSW HIDEAWAY, 2 - 3 b/r house, furniture, solar lights, generator, new water tank, ride-on mower, 4x4 ute, lge shed, f/trees, dams & lots more, all on fully fenced 33 ac. School bus at door. \$95,000. Ph: 02-6666-1206.

EUGOWRA, HISTORIC BEN HALL bushranger country. Renovated 3 b/r home on 1/2 ac. Open plan lounge, kitchen, dining, additional study, play or sunroom, new en suite bathroom & separate toilet with water saving fittings. Pressed metal ceilings; floor to ceiling wardrobes; upgraded electrical system; s/c/heater; cork tiling. Informal native garden; paved BBQ area; f/trees; shadehouse; sandpit & adventure play area among granite boulders. Bush shed with power & lighting + additional sheds. Ideal for sml business. Half hour Canowindra/Parkes/Forbes, 50 mins Orange. Excellent small schools. \$103,500. Ph: 02-6026-4320, Rod Kerr BH.

DEADLINES: GR139 - APRIL 30TH
GR140 - JUNE 30TH

MID NORTH COAST, 66 km NW of Macksville, 24 picturesque ac with solid timber & stone house & studio. A secluded haven - crystal clear crks, swimming holes, some r/forest, mtn views, estab fruit & nut trees. \$120,000. Ph: 02-6564-2106.

NEW ENGLAND, 41 km nth of Tamworth, 61 km sth of Armidale, 2 ac in village, opposite general store. Bus at gate. Large trees, river frontage. Valuer-general valuation \$33,000, sell \$24,000 due to ill-health. Ph: 02-4787-1754.

LAST CHANCE, 1/4 ac in beautiful Copmanhurst village (near Grafton). Quiet, trees, close to school, shop, PO & Big River. \$1900. Ph: Mark, 02-6657-2980.

UPPER CLARENCE VALLEY, 100 ac, cabin, sandstock block house 1/4 built, 2 dams, orchard, 20 ac grazing, rest heavily timbered. Main rd at front, state forest at rear, ph, power avail. Very good soil, subtropical climate. \$120,000. Details ph owner, 02-6661-3561.

NYMBOIDA, 25 ac, all timbered. High ridge with views, good flat house acreage. Electricity at front fence. Mahogany, tallowood, turpentine, spotted gum. All for \$33,000. Ph: 02-9552-1925.

MID NORTH COAST - 20 mins from Wingham on Bobin Crk, 42 ac property on pristine crk. Reputed to be 2nd most pure water source in NSW. Good fencing, great neighbours, great views. Dairy with power. Primary school within walking distance, or school bus, \$130,000. Ph: 02-6553-0790.

NORTH COAST, 20 mins Lismore/Kyogle, 5 1/2 ac (developed) share for sale. Beautiful mtn views, peaceful, private, ridgetop setting. Heaps of f/trees & lovingly landscaped gardens, lge, liveable shed, tanks, dam & more. \$69,000 ONO. (Sorry - no vendor terms) Apply to: The Advertisers, PO Box 48, ROCK VALLEY 2480.

NORTH-FACING MOUNTAIN SIDE inland from Eden near the Vic/NSW border, 220 ac of native forest, nth boundary is km + of wild river with nat pk opposite. Total seclusion, but handy to civilisation when required. Wildlife galore. Health farm, ecotourism, sell shares, grow timber for harvesting & help save native forests, or just do your own thing. Valued 2 years ago at \$145,000, we're listening to all offers. Also: 120 ac of native forest, wildlife, good soil, km crk frontage, valued 2 yrs ago at \$95,000. Offers? More details on 02-4784-1020.

AFFORDABLE COUNTRY LIVING: \$72,000, new, 4 yr old, 4 b/r, formal lounge, kitchen/family, coolroom, air-con, heating. Double car accom, femery, fencing, trees & gardens. Walk to shop & school, on 1/2 ac, very well preserved. Small country town & only 25 mins to Nyngan. Ph/fax: 02-6833-1145, or 07-5442-1621.

HOUSE IN HENTY, 6 bedrooms, lge renovated kitchen, 12 ft ceilings, pise with verandah. Lots of old world charm. \$45,000. Ph: 02-6929-3114.

THREE BEDROOM HOUSE, lots of scope on lge block. Hardyflex covered, Henty. \$43,000. Ph: 02:6929-3114.

QUEENSLAND

CHANCE OF A LIFETIME, 5 ac on crk, power & ph, great views down the valley, 10 mins to local town and 1 1/2 hrs to Brisbane. Full price \$32,000 seller terms, \$500 full deposit & \$85 pw. Ph: Ian, 07-4662-2981, or Wayne, 07-3262-6050.

PERFECT QUEENSLAND HIDEAWAY, 21 ac natural pine forest, all-timber weekender cabin with elec & ph connected. All overlooking extra lge perm dam & hidden in middle of the forest. \$42,000. Seller terms to anyone with \$5000 full deposit & \$120 pw. Ph: Wayne, 07-3262-6050.

ONE HUNDRED ACRES FOREST near Dalby Queensland, rugged natural crk fronting undulating open forest country, wildlife galore, 2 1/2 hrs Brisbane. \$32,000, or with new lge hayshed \$34,600. Wayne, 07-3262-6050, Ian, 07-4662-2981.

NATURAL OPEN GRASSLANDS and forest 1250 ac, with long frontage to perm crk & many lge perm natural lagoons. Old shearing shed, power & ph avail. Located 3 hrs Brisbane/Gold Coast/Sunshine Coast in Queensland. Full price \$100 per ac (\$125,000). Wayne, 07-3262-6050.

NO ONE WILL EVER FIND YOU at Benthleigh Station, 650 ac, virgin open forest teeming with wildlife. Home built to lock-up in middle of property, 10 ac of lagoons & long frontage to perm Wilkie Crk. Located 3 hrs Brisbane/Gold Coast. \$125,000. Owner will consider home anywhere as full deposit & seller finance balance @ \$135 pw. Wayne 07-3262-6050

SECLUDED WILDLIFE SANCTUARY: 117 ac, huge 8 yr old 4 b/r, 2 bathroom, split block home, 40 ac 6 ft chain fence, 2 good bores, 2 bay shed, tame wallabies/possums. Viable tourism prospects. 30 mins from Mackay. No dogs or cats. \$225,000. Ph: 07-4947-3271.

GREAT OPPORTUNITY to live a peaceful lifestyle in the beautiful Brisbane Valley, 50 ac, elevated position, lovely views. Nearest town 20 km, bitumen roads, 2 dams. Three b/r home, solar power, gas stove, wood heater, lock-up double garage, lots of extras. \$140,000. Ph: 07-5423-5207.

PEACE, PRIVACY, 160 ac, 1/2 hr Warwick, 2 hrs Brisbane, well timbered, wildlife, views, cabin, ph, 4000 gal tank, spring-fed dam, fenced. \$100,000 ONO. Ph: 07-4661-2554, 07-4664-8299.

WE'RE RETIRING, WOODFORD DISTRICT 130+ ac, 25 ac crk flats used for sml crops, 2 km perm crk frontage with irrigation licence, platypus, fish aplenty, mixed orchards. Thirty ac mountain top uncleared, spring, views Sunshine Coast, road end, secluded, 15 mins Woodford Folk Festival, 1 hr Brisbane Airport, 45 mins Bribie Island. Classic 3+ b/r Queensland home, f/place, school bus, power, 2 ph lines, other improvements, 30 mins lge retail centre. Vendor terms avail. \$350,000 ONO. Ph: 07-5496-3591.

BEAUTIFULLY RESTORED old Queenslander on 5 quiet ac, 30 mins from Bundaberg. \$115,000. Ph: 07-4157-4417.

STANTHORPE, 40 ac virgin bush, crk, near-new home, solar powered, 3 hrs Brisbane. \$95,000. Ph: owner, 07-4683-4254.

GRASSIFIEDS

PROPERTY FOR SALE QUEENSLAND

CHILDERS AREA, set on 47 ac of rich, red volcanic soil our exquisite home overlooks a 30 mg/l dam, the cane fields & the mtns. Our charming home is a restored 95 yr old Queenslander with 3 b/rs, 11 ft ceilings, beautifully polished hoop pine floors, 9 ft verandahs, kitchen/dining room separate from the main home & connected via a breezeway. Owner sale, \$300,000. For more details please visit our website: www.isisol.com.au/appletree or call us on 07-4126-6463.

EMPTY NEST FOR SALE, 3 b/r cottage on 5 ac, newly painted inside & out. Quiet rural lifestyle, 10 mins from Gympie, school bus service, furnished. \$87,000 ONO. Ph: 07-5482-7651.

FOREST RETREAT, 820 ac with 3 yr old self-cont Colorbond dwelling. Slow combustion heater, perm water, abundant wildlife. 40 km SE Tenterfield NSW. Bordered by Mt Spirabo Nat Pk. No neighbours herel \$110,000. Ph: 07-3287-2881.

CHINCHILLA, QUEENSLAND, 125 ac, lge dam, natural forest, no one will find you here. \$36,000. Seller terms to anyone - \$3600 deposit, \$80 pw. Ph: 07-3262-6050.

STATE FOREST RETREAT, Brisbane, 30 ac mountaintop, views for 100 miles, power, ph, rich soil, super lge dam, overlooks & adjoins state forest. \$85,000. Owner terms, \$5000 dep & \$185 pw. Ph: 07-3262-6050.

DALBY, CHINCHILLA, 21 ac, bush, dam. \$21,000. Owner terms, \$500 dep & \$65 pw. Ph: Wayne, 07-3262-6050.

DALBY-KOGA, Queensland, 615 ac, bush, grazing, perm flowing crk, perm lagoons. Fenced into 2 paddocks. Home built to lock-up. Worth \$125,000, now drastically reduced. Make an offer. Ph: 07-3262-6050.

MAGNIFICENT MACKAY, business/residence, 4 b/r, prefer sale as investment property with assured current owner. Secure rental (negotiable). Will consider outright sale. Suit natural therapist clinic. \$135,000 ONO. Enquiries: 07-4957-2856.

NATURAL LIVING, TOWARDS SELF-SUFFICIENCY, adobe house 10x16 m + paved verandahs, 3 b/rs + study, carpet & cork throughout, s/c/stove & 3-way hot water. Office 7x8 m, brick, air-conditioned. Three bay c/port, tractor & slasher, sml shed on 1 1/2 ac bounded by perm crk. SE, Qld, Sunshine Coast. \$145,000 ONO Ph: 07-5486-5230.

WALLAUMARRA RAINFOREST SANCTUARY, self-contained 2 b/r cabin in 40 ac near-virgin r/forest, adj Eungella Nat Pk west of Mackay, nth Qld. Established, managed tourism accom. Abundant birdlife & fauna, spring-fed crk & walking trails. Suitable private use. \$135,000. Offers considered. Ph: 0407-606-491 for photos etc.

PLACING AN AD?
See page 73 for details

KOOKABURRA PARK, 2 - 3 b/r near-new house on 1 1/4 ac. Power, water, ph, woodstove, sep garage, hilltop site. \$100,000 ONO. Ph: 07-4157-3095.

LAND, SOUTH-EAST QUEENSLAND, 10 mins east Gympie, 12.5 ha (30 ac), very good r/fall, your own hilltop, 2 dams, seasonal crk, fabulous views, nth facing, part cleared, some r/forest trees, adj state forest, cleared house site. Close ph, power. \$75,000. Ph: 07-3846-2134.

KOOKABURRA PARK ECO-VILLAGE, 3 km from Gin Gin PO, relocated, elevated renovated 3 b/r house on 1 ac f/hold with 360 ac in common. Abundant fresh water + 9000 gal r/water, elec, ph, gas, septic. Fully concreted under. Two bathroom/toilets. 9 ft x 30 ft verandah, 9 m x 6 m dlug workshop. Sealed roads, chookyard, vegie garden f/trees, lge shade-house, kangaroos. Will fax or mail more info. Ph: 07-4157-2041.

AGNES WATER, 40 natural ac, fenced, 4 b/r home, main en suite, built-in robes, study, open plan living. Silky oak french doors open from all rooms on to screened verandahs. Phone & power connected, solar hot water, LPG stove, 2000 gal/hr potable bore water. Submersible pump & underground irrigation. Bitumen rd frontage. On school bus routes. School, childcare, doctor, vet clinic, shops & Queensland's most northern surf beach, just 5 mins away. \$230,000. Ph: owner, 07-4974-9242.

EUNGELLA, EIGHTY KILOMETRES WEST OF MACKAY, 16 ac secluded open forest, 360° forest & crk views, total privacy. Permanent crk, waterfalls, abundant water & wildlife, estab f/trees & garden. Large 2 b/r house, open plan, cathedral ceilings, wood heater, mains power. Cars, work & entertainment under. Eungella village 5 km, primary school, shops etc. Sickness forces sale. Offers in \$150,000s. Ph: 07-4958-4650.

CRYSTAL WATERS PERMACULTURE VILLAGE, Maleny, SE Qld. \$110,000 ONO; 2 bed timber house; shingle roof; good loft spaces; solar & mains; composting toilet; 2 potbelly stoves; large entertaining area; s/c cabin & carport; beautiful gardens; rich soil; level 1.12 ac f/hold; all council approved. Ph: 07-3366-0629, or brenda@ecn.net.au.

RETAIL OPPORTUNITY IN YOUR FRONT YARD, lge highset Queenslander, VGC, on crk frontage with sep 5 sq shop on hwy frontage in historic tourism area, perm water supply, r/forest & estab garden, 1 hr Sunshine Coast. Price \$89,950. Ph: 07-3282-4516.

SOUTH EAST QUEENSLAND, MAIDENWELL, 40 km to Kingaroy, 8.5 ac, undulating, lightly timbered, lovely views. Livable dwelling, lge Colorbond shed with verandah, lights, power & ph cable, 3000 gal tank, good dam. Sealed road to front gate. Attractive block with good soil for lifestyle farmer. \$46,000. Ph: 07-4668-0210. Two adjoining blocks similar size without improvements also avail. Ph: 07-3888-7425.

ATHERTON TABLELANDS - ISOLATION! World Heritage r/forest surrounds, rare native animals, comfortable dwelling, 4WD access, no humans for miles. \$100,000. McAuliffe First National. Ph: 018-183-145.

FORTY ACRES, QLD, Kingaroy area, fenced, old shed, dam, crk, ph. Power outside block. \$25,000. Ph: 07-3286-2880.

KILKIVAN, 45 km Gympie, 5 ac NE aspect, part fenced, dam, cleared, good soil, 3 km primary school; shire offices, shops, library & pool. Ph/elec readily avail. \$18,000. Ph: 07-3216-2728.

GIN GIN AREA, secluded 3 b/r home on 80 ac in rolling valleys, 18,000 gal r/water tanks, bore & dam, power & ph, lge dble c/port & dble garage. Organic fruit salad orchard & vegie garden. Camping areas with BBQ sites, hot & cold showers, huge dam. Change over or trade considered. \$150,000. Ph: 07-4156-3322.

OPAL FIELD YOWAH. Need a new life! Go west. One b/r cottage. F/hold land, big block, c/van, artesian water. New school! great community! Fossick in your spare time. \$27,800 - bargain. Ph: 08-8979-5962 after 5.00pm.

MOUNTAIN RETREAT, 90 km nth of Bundaberg Qld, only 40 km to the beach at 1770. New pole house with 360° views set on 43 ac, 2 b/rs, solar gas and septic, 5000 gal water tank, fully Council approved. Seasonal crks + lots of wildlife. This is an ideal home for the person who wants peace & quiet yet the comforts of a modern home. \$85,000 ONO. Call Tom on 07-5575-6150, or 0409-511-321.

ARE YOU WANTING VENDOR TERMS? Pay only \$153 pw on excel 100 ac grazing block, sealed rd access. Phone owner, 2 - 5pm, Bundaberg, 07-4153-1344.

KINGAROY, SE Qld, 160 ac, lge 4 b/r split block home, double garage, 15,000 gal fresh water storage, bore, dam, irrigation dam, 75 ac crk flat with improved pastures, sheds, stables, fenced, quiet country retreat with valley views. \$250,000 ONO. Ph: 0419-007-709.

CLOSE WARWICK, 40 ac undulating, fenced, new house, views, gardens, sheds, yards, trees, timber, dams, tractor, machinery, pumps. \$165,000. Ph: 07-4667-4940.

STANTHORPE, secluded 3 ac, 3 km PO, landscaped, some bush. Large 3 b/r home, verandahs 4 sides, constructed 1984. Potential further development. Double c/port, shed. Some chattels, dam, well, irrigation lines. \$170,000 ONO. Ph: 07-4681-1096.

VICTORIA

SOUTH GIPPSLAND, magnif private 42 ac, unspoilt forest & excel pasture land. Stunning views, fully fenced (new), power, 3 b/r, 9 year old, 16 sq house, 2 bathrooms, kitchen, family, lounge. Ample water, beaches & nat pks nearby. \$165,000. Ph: 03-5194-2313 after 5.00 pm.

WESTERN DISTRICT, between Colac & Camperdown, 3 b/r dble brick home; stone wall fences; historic stone bridges. Close to shipwreck coast; 110 ac volcanic landscape & much more. Abundant wildlife. \$128,000, ONO Ph: 03-5235-1376.

Don't forget to include your area code with your phone number. It's best to set it out as 00-0000-0000.

GRASSIFIEDS

PROPERTY FOR SALE

VICTORIA

LAKES ENTRANCE, EAST GIPPSLAND, 4 b/r house on 3 ac with en suite, 6 & 4 berth c/port. Walking distance to surf beach. Plus 25' x 44' steel garage, plus 21' van & annexe, suit teen accom, garden shed, town water, tank water & dam. Possibly suit permaculture. \$142,000. Ph: 03-5155-3659, or 03-5158-7238.

GIPPSLAND, WILLOW GROVE, mud brick 3 b/r home on 5 ac, open plan, built around Oregon church trusses. Power, town water, estab home orchard, extensive native garden, overlooking the Baw Baw Ranges. \$175,000. Ph: 03-5674-3644.

MURRAY RIVER PROPERTY for sale, in the township of Barmah, 3639 Vic, consisting of: 3 flats; 2 x 1 b/r kitchen/dining area flats; 1 x 2 b/r kitchen/dining area flat; 3 car open-front garage; 24 ft x 20 ft lock-up shed, concrete floor with power; smaller lock-up shed, 18 ft x 9 ft; 28 ft x 18 ft BBQ area, 20 ft x 12 ft c/van port; all on 2 acres. Suit angling club, or investment, 2 mins to river, boat ramp close by, ample c/van storage. Barmah is close to major towns such as Shepparton & Echuca. Ph: 03-5869-3378, 03-5985-7996.

WEDDERBURN, QUAIN 3 b/r cottage, completely renovated, lovely cottage garden, a/c - Coonara, c/port, pergola, very close to shops, 2 1/4 hrs nth of Melbourne. \$42,000 ONO. Ph: 03-5494-3263.

WEDDERBURN FARMLET, a beautiful lge 3 b/r, rendered brick homestead on 11 1/2 ac, fertile soil. Home: solid & well-maintained, Coonara & reverse-cycle a/c, dam & tank water, lovely garden, garages, sheds, power, 8 mins to town & schools, school bus to front door, 2 1/4 hrs nth of Melbourne, peaceful location. \$85,000 ONO. Option to purchase additional 20 ac - \$10,000 ONO. Ph: 03-5494-3263.

CENTRAL VICTORIA, peaceful family home, 2 b/r brick house on 1/2 ac in Tamagulla township, in forested country 47 km west of Bendigo. Wildlife, birdlife, power, water, ph connected, lock-up garage shed. \$65,000. Please ph: Tweed Sutherland, 03-5442-1811 BH, or owner, Kevin Lees, 03-5571-9938 AH.

EAST GIPPSLAND, 20 mins Lakes Entrance, fishing, boating, bushwalking, 3 bed w/board, just renovated, new gas kitchen, polished boards, sunroom, lots sheds, double garage, fernery, 60' x 20' enclosed vegie garden, f/trees, 2 treed ac backing state forest, power, water, \$82,500. Ph: 03-5157-5349.

WEDDERBURN AREA VIC, 2.5 hrs NW Melbourne, 1 hr W Bendigo. Kangaroo fencing encloses 35 ac which incl approx 3000 peach trees & 400 cherry trees, lge dam with fish, 2 houses (one 3 b/r BV with en suite, solar & generator powered, 7 years old & one 2 b/r room Colorbond house, generator powered, 2 years old), machinery & sheds, 72 ac natural grassland. Property backs on to Mt Egbert State Forest. Ideally suited for olives, grapes, aquaculture or cropping. Priced to sell. \$185,000. Ph: 03-5494-7482, or 03-5494-7361.

DEADLINES: GR139 - APRIL 30TH
GR140 - JUNE 30TH

EAST GIPPSLAND, 377 private ac, with state forest on 3 borders, 3 b/r rammed earth home with septic, solar HW, solar power + Lister diesel backup. Solid wood heater & stove, + sheds. Absolute pristine crk through property, ave 39' r/fall. Glockerman pumping 24 hrs, 5000 gal concrete tank overflowing. Council road to gate. Unique property. \$180,000. Ph: 03-5155-3659, 03-5158-7238.

SOUTH AUSTRALIA

MID-MURRAY, SOUTH AUSTRALIA, private f/hold 13 ac. New house, 3 b/r, 2 bathrooms, family room, sep lounge. Large Colorbond shed & c/port. Numerous f/trees, grapes, vegies. Some commercial water licence. Access boat ramp, River Murray views. \$129,500. Ph: 08-8570-8056.

KANGAROO ISLAND, SA, 35 ac, true bliss. Comfortable, bright, cosy, house, 3 b/rs, open plan, office & recently renovated on 35 ac, located in the centre of Kangaroo Island, near Parndana. Ideal family lifestyle, great place to raise kids in friendly country atmosphere. Undulating land, 2 lge dams, tanks & good r/fall. Ideal for grapes, olives, smt crops, grazing, bees. Strong demand for tourist accom, farm stays, or B&B in this popular & unique holiday destination. For sale at \$145,000. Call Ty or Carrie on, 08-8559-6150.

THREE RURAL ACRES with lovely home, sheds, water & elec, 50 mins Adelaide. School bus passes. \$85,000. Ph: 08-8862-1027.

CENTRAL YORKE PENINSULA VILLAGE, close to jetty & boat ramp, ocean views. Older style stone house with 10' ceilings. All conveniences, on 1080 m². \$97,000. Available abutting block 990 m² \$30,000. Buy both - total \$120,000. Vendor finance avail. Ph: 02-9670-6082, or 08-8390-1423.

TASMANIA

MARAWAH, 140 ac uncleared eucalyptus/heath, under conservation covenant, with development potential (tourism/hobby farm), perm water, 2 crks, open plan house with alternative power, ph. Solitude, fishing, surfing, bushwalking. \$120,000 ONO. Ph: Diana, 03-6257-0115.

GENUINE BARGAIN, owner moving into motorhome therefore many inclusions. Hilltop views, 1/4 ac fenced landscaped gardens. New bathroom, neutral colours, insulated, new open-plan lounge, eat-in kitchen, garage, huge workshop, local store, all facilities 26 scenic km. Free brochure with plans & photos. Only \$49,950 for quick sale. Ph: owner, 03-6354-6146.

CYGNET, 2 - 3 b/r cottage, sunroom, 21 ac, 4 titles. Organic garden, crk, dams, views. \$89,000. Ph: 03-6295-0099.

LUNE RIVER, 1 ac (certified organic), 1/2 ac raised garden beds, fenced, dam, chook pen, sheds, hut, ph & power, 200 m from pristine river, beside World Heritage area. \$17,500. Ph: 03-6298-3291.

MYRTLE PARK, 100 ac mature bush, 30 mins Launceston, 2 b/r cabin, perm water no neighbours, own waterfall. \$80,000 ONO. Ph: 03-6376-8355, or 0418-232-110.

GLENGARRY TAMAR VALLEY, near-new 2 storey 2 b/r western red cedar home, lge verandah, blackwood kitchen, lge bathroom with spa, gas HW, lge woodheater, lge lounge with cathedral ceiling & exposed beams, situated on very private 25 ac bush block with excel views, video avail. Consider rental purchase. \$10,000 under govt valuation. \$115,000. Ph: 03-6383-4222, or 03-6383-1616.

NORTH-WEST, 2 ac with lge 4 b/r timber & iron fully renovated house. Small friendly rural town. Fact sheet avail. \$84,900. Ph: 03-6363-1480.

WEETHA, TWENTY ACRES (7 km Deloraine), 1/2 pasture, 1/2 bush, 2 - 3 b/r home, perm water, chemical free vegie garden - fruit & berries. Ample supply of stove wood. Suit self-suff lifestyle, with income potential. \$115,000 ONO. Ph: 03-6362-3510.

DELORAIN, TASMANIA, renovated 3 b/r cedar/Oregon insulated home on 4 landscaped ac. Open plan, timber linings, s/c/stove, o/fire to dual HW system. Workshop, c/ports, infrastructure. Water tanks + river, trout, platypus. \$93,000. Also 18 ac pasture bush adjacent, separate titles, power, house site, views. \$40,000. Ph: agent, 03-6362-3570, or owner, 019-995-815.

NORTH TASMANIA, 60 ac on Mersey River, 2 fresh water springs, cabin, ph, crk, 1/4 thick forest, 1/4 pasture, mtn views, 20 mins to Deloraine. \$50,000. Ph: 02-6645-8868.

TWENTY MINUTES NORTH-WEST LAUNCESTON, western red cedar house, 50 ac, approx 35 pasture/15 bush, private location, school bus 500 m, 10 mins new shopping complex. Excellent soil, northerly aspect, crk, spring-fed dam, clear mineral water bore. 14 sq house, lge open plan living/dining/kitchen, 3 b/rs, lge 4th b/r/rumpus. North facing, fully insulated, wood heater, new Tas oak kitchen & appliances, 4 car c/port. Outbuildings. Price \$148,000 ONO. Ph: 03-6330-2842. More info <http://www.netSPACE.net.au/~karilya>.

NORTH-EAST, UPPER ESK, 314 ac on South Esk River, excel river flats, grazing country some bush. Running 40 breeding cows, 40 yearlings & horses. Adjacent state forest, bushwalking, riding, fishing & snowfields. Three b/r cottage, mtn views, power, ph & water. \$160,000. Ph: 03-6331-4840 AH, mobile: 0419-871-429.

*Don't forget the deadline
if wishing to advertise in
Grass Roots*

GRASSIFIEDS

PROPERTY FOR SALE WESTERN AUSTRALIA

MECKERING, 1½ hrs east of Perth WA, modern style home, ¼ ac, lounge, din/kit, passage to 3 lge b/rs, bathroom & WC, laundry & WC, enclosed verandah back & front, ducted a/c roof installation, new carpets, back verandah with sleepout, garage with power. \$58,000. Ph: 08-9625-1125, fax: 08-9625-1048.

HARVEY, WESTERN AUSTRALIA, 160 ac, sml plantation timber eucalypts, abundant water, undulating, ancient WA peppermints & paperbarks, varied soils. Suit horticulture, cattle, alpaca, herbs, grapes, etc. \$380,000. Ph: 08-9729-3464.

PERTH, 45 MINUTES TO CBD, secluded 25 ac, mostly bush, excel bore, 2 spring-fed dams, winter crk, suitable for aqua/horticulture. Neat 4 bed timber cottage, shed, poultry run, fenced paddock, f/trees. Power & ph, school bus stops at gate. \$162,000. Ph: 08-9255-1301.

UNGARRA, 2 town blocks, lots 5, 6. Shed, water, elec, ph. \$6000. Apply by letter to: G Chaston, 4 Bernard Pl, PT LINCOLN 5606.

COMMUNITIES/SHARES

UNIQUE OPPORTUNITY, ¼ share in 6400 ac, 2 lge rivers + junction. Select a 20 ac homesite, share remainder. Mostly timbered, 2 hrs Lismore. \$25,000. Ph: 02-6666-1399, 02-6666-1382.

PORT MACQUARIE, community forming, 900 ac, semi-cleared, bordering nat prk, 5 km from surf beach, \$7000 per person. Ph: 02-6566-0089, 02-9315-8042, 02-6653-4601, 03-9534-7064.

TIPI TRANQUILLITY, camping accom, upstairs sleeping platform, built-in fire; in exchange for help in managing 27 ac property in NE Adelaide Hills. Short or long term. Ph: 08-8389-2404.

FAR NORTH COAST - Border Ranges/Cawongla - 4 ac share in estab friendly MO (company title). Ridgetop position with millable timber. Water & ph, easy access, pets OK, 15 mins to Kyogle, 30 mins Lismore. \$20,000. Ph: 02-6684-7261.

TRUST ESTABLISHED TO FUND biodynamic style property for practical teaching of herbal medicine, acupuncture, & biodynamic farming principles. Need help from independent people. Ring Neville/Lynne: 0500-888-956.

MID NORTH COAST NSW, 28 km to Kempsey, one-sixth share in 380 ac, tenants in common, 11 x 9 m shack, ph connected, tank etc. Backs state forest, magical place. \$26,000. Ph: 02-6566-9028, 0419-611-460. Will sell.

*Please print your ad clearly
so we can do likewise*

PLACING AN AD?
See page 73 for details

BUSINESSES FOR SALE

WORK FROM HOME IN RURAL QUEENSLAND. Distribution business in renewable energy & house for sale. Wholesale & retail clients, estab 14 yrs, good family income, 5 days a week. Three b/r compact Queenslander on 4½ ac. Phone Ian or Judy at night. Ph: 07-4129-4185.

FOR RENT/ CARETAKER WANTED

CARETAKER/GARDENER FOR ORGANIC VEGETABLE farm, 1 hr from Canberra, near Tarago NSW, 2 bed cottage, rent free in exchange for 2 days work. Suit retired couple. Ph: 02-4234-2707.

TWELVE BEAUTIFUL ACRES, East Gippsland, close to schools, shopping centre, beaches, fishing. Neglected hobby farm, suit permaculture or organic vegie growing. Rent \$50 per week. Write to: owner, PO Box 2071, GRIFFITH, NSW 2680, include address & ph no.

PERTH HILLS, free accom for trustworthy person(s) for 4 weeks end May/June, cabin on 5 ac, fully equipped, HW, elec. In return take care of dog, geese, chooks while owner overseas. Ph: 08-9255-1301.

PERSON(S) TO SHARE/RENT house, c/van, secluded Hunter bush block, 60 km Newcastle. Terms negotiable. Ph: 02-4938-2036.

NATURE RETREAT FOR RENT, beautiful 2 b/r stone & timber house on 15 ac. Solar powered, gas stove & fridge, f/trees, garden, perm crk, 25 mins Kyogle NSW, 3 mins school bus. \$100/wk. Ph: 02-6633-3217.

QUEENSLAND HOUSE ON EIGHTEEN ACRES near Beaudesert for rent, \$140 pw. Help given to owners will reduce rent. When owners are absent care of property animals etc will reduce rent to nil. Ph: 07-5543-1447.

PROPERTY WANTED

LAND WITH ANY TYPE of dwelling. \$20,000. Northern Tablelands NSW or Tasmania. Remote area okay. Ph: 02-6778-3487, PO Box 46, URALLA 2358. Ph: 02-6778-3223.

COUPLE WANT FIVE ACRES approx, some well timbered (with crk if poss) with dwelling & utilities, in Sunshine Coast hinterland (Qld). No chemical farms close vicinity. Vendor terms only. Ph: Bill & Sylvia, Ph: 07-5446-8261.

APPROXIMATELY FIVE ACRES, river frontage, land & ocean access from block, utilities unimportant, between Maryborough & Townsville, northerly aspect. Inspecting March 2000, cash avail now for suitable block. Reply to: K Barber, PO Box 597, MUSWELLBROOK 2333.

FIVE ACRES MINIMUM, sealed road frontage, school bus. Good deposit avail with vendor finance terms preferred payment. Queensland coastal region between Mackay & Maryborough: Forward all details to: 'Harry', PO Box 1369, BOWEN, Qld 4805.

ANYWHERE. . . GOT PLENTY OF LAND? Wouldn't miss a 5 ac corner, to give away to sensible student couple desperate to be self-sufficient? We've only limited savings: a \$1000 cash gesture for your generosity. Our fingers are crossed. . . Clare, PO Box 269, FAIRFIELD, Vic 3078.

WANTING TO BUY, LISMORE DISTRICT, 10 - 100 ac with some cleared land & old style/character home. Up to 30 mins from Lismore. Price range \$140,000 - \$170,000. Please call Victoria on mobile: 0414-442-525.

NORTH COAST NSW, 5 - 20 ac, nth aspect, organic soil, water, well treed, 2WD access, school bus & ph, MOs perhaps. Ph: Nathan/Melinda, 02-6628-2661, mob: 0428-606-298.

LAND, MINIMUM TWENTY-FIVE ACRES, must have r/forest, perm running water. Property mainly uncleared, chemical-free, anywhere in NSW. Martin & Jan, PO Box 35, SUTHERLAND, NSW 1499.

WANTED TO RENT/ CARETAKE

KIWI COUPLE MOVING TO AUSTRALIA 20th April seek to rent/caretake property mid-north NSW coast. Honest, capable, n/s. Interested organics. Ph/fax: 001164-7-5413135 (NZ). Will Stone, 24B Oban Rd, TAURANGA, New Zealand.

RELIABLE COUPLE (40s), fit & active, interested in caretaking a property near Hobart or Launceston. Excellent references. Please ph: Ian or Liz, 0419-848-847.

WANTED

WANTED: EXPRESSIONS OF INTEREST IN 'ECO-ECO FRIENDLY HOUSING'. We are currently forming a new company to be called Ethical Home Developments P/L. We are seeking expressions of interest from people in all walks of life who are seeking to relocate & hopefully purchase the home of their dreams. The people we seek are interested in self-suff issues, permaculture, or are in some way seeking to better themselves, their family & our planet. We are currently in the design & development phase of a new housing concept that we call 'Eco-Eco Friendly Housing' (ECologically - ECONomically friendly). We hope to soon be offering these homes as rural house & land packages avail with vendor finance & easy qualification for even the unemployed. Terms will be negotiable with lease/buy packages avail. To register your interest, or for more info please call George Mingin on 07-4157-3424, or email mingin@alphalink.com.au

GRASSIFIEDS

SWAP/EXCHANGE

HOUSE ON CENTRAL YORKE PENINSULA, ocean view, jetty, boat ramp. Exchange with house on 3 – 5 ac, nth NSW. Radius 20 km to beach. Ph: 02-9670-6082, or 08-8390-1423.

OPPORTUNITIES

PROPERTY DEVELOPER/LIFE-PARTNER required to share in development of & returns from bird sanctuary/commercial breeding aviaries & horse riding facilities on 50 ac of mountain r/forest, inland from Mackay Qld. Successful applicant will be female, 18-30s, fit & active, self-motivated, have keen interest in animals & nature, and be looking for a long-term project with worthwhile rewards. Apply with resume of experience, interests & photo to: Bruce Kennedy, Lot 11, Chelms Road, DALRYMPLE HEIGHTS, Qld 4757.

SEEKING MATURE PERSON/COUPLE, permaculture/organic interests as caretakers/partners 400 ac property 40 mins west of Gympie, SE Qld. Part nature-refuge part market garden, 1000 pawpaw planted, sml native plant nursery. Secluded van site, crk, annexe, hot shower/toilet, elec supplied initially. Negotiate ethical agreement security in return energy, skills, commitment etc. Ph: 07-5484-1348.

ADOPT A FOREST; assistance required to re-afforest an area presently degraded by exotic weeds. The idea is to replicate the magnificent r/forests on the property. I can provide accom & a place in paradise. Ph: 02-6587-6147.

YOUNG FIFTY YEAR OLD with a love of adventure, art, horses, music, cooking, gardening and Indian culture looking for a lady to help with the running of property. Must be honest and happy. NSW. Ph: 0402-133-110.

PUBLICATIONS

BOOKS, OLD AND NEW, send for general list: R Suters, PO Box 127, FIGTREE 2525.

'NATIVE STINGLESS BEES' for profit or pleasure – how to get started, pollination/honey potential in Queensland. Detailed info booklets, packed with photographs, diagrams. For free catalogue, send name, address & 45 c stamp to: ANBRC, Box 74-G4, NORTH RICHMOND 2754.

'NIMBIN NEWS MAGAZINE', is a co-operatively run access magazine with articles & information from Nimbin and other areas. We cover concerns relevant to alternative lifestyles & others looking for the most sustainable way. We are one of the longest running alternative magazines & the Nimbin bioregion is at the forefront in the development of sustainable systems. As networkers we scan many mags for suitable & scarce information for our readers. Subscription: 6 editions for \$18, sample \$3.50. Back copies 5 for \$12 posted. PO Box 209, NIMBIN 2480.

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APRIL 14/15/16TH 2000, 25th Annual Kapunda Celtic Festival, SA. A mostly free weekend of Celtic Music & Culture. Village Fair, 10am - 4pm Sunday 16th. Craft stall sites contact: Secretary, Box 477, KAPUNDA 5373. Ph: 08-8252-9054.

CLUBS

NATIONAL ALLERGY ASSOCIATION of Australia (NAAA) and ECO-CHOICE (our mail-order store). Enquiries; information; clinics; membership & catalogue. Contact NAAA, PO Box 48, HARRIS PARK, NSW 2150, Email: naaaauz@yahoo.com. Ph: 04-1324-1166.

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SIXTY-ONE YEAR OLD Saturday Sabbath Keeper, n/d, n/s, honest, sense of humour, travel, business in art & craft. Need slim attractive lady, caring. I have early diverticular problem & want to marry someone who understands diet. Age 40 - 50s. DN (GR138), PO Box 117, SEYMOUR 3661.

WORKING MAN, 55, divorced, with a true heart, seeks similar lady for friendship & companionship in or near 0242, 0248 or 0246 STD areas. I like simple living, most music, honest genuine people, the bush, clouds, old aeroplanes, gardening, kindness & humour. I have little or no interest in politics, city life materialism, commercialism or jazz. Ph: James, 02-4878-5042 evenings.

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'QUANTUM KNOWLEDGE' magazine making New Age connections. Ph/fax: 07-5533-3000. Website www.quantumknowledge.com.au

MALE FIFTY-EIGHT, honest, caring, sensitive. Home on acreage, into self-suff, photography, travel, music. Seeks female, age open, who likes rural lifestyle, for peaceful life together. Reply: H, Box 1036, GYMPIE 4570.

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See page 73 for details

PEACHY AT FORTY, looks & feels 30+ 4, great children, looking for nice quiet lady between 25 - 38, slim - med build, n/s, n/d, for lifetime friendship & r/ship. Currently living suburbia but moving shortly to nice country property for a more peaceful lifestyle. Reply to: Peach at: PO Box 326, BEENLEIGH, Qld 4207. Ph: 07-3287-2643, or 26 Kelly St, EAGLEBY, Qld 4207.

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VEGAN MALE, 40, n/d, n/s, seeks female, similar or younger. Ph: 03-9897-3221, or write to: Ronald, PO Box 567, RICHMOND 3121.

WESTERN DISTRICT, male, 36, tall, slim, interests in permaculture, gardening, Eastern philosophies, yoga, breathwork, mysteries, freedom of the nudist lifestyle, peace, love, very down to earth, seeking soulmate as above interests write: JD (GR138), C/- Box 117, SEYMOUR 3661.

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Please put each letter in a separate stamped envelope addressed C/- GR. We will re-address & forward it. Don't forget to put the issue number on reply, i.e: Skye (GR 128) . . .

MALE, SETTING OUT on a journey and wanting a female companion/soul mate. Reply: Chris (GR138), C/- Box 117, Seymour 3661.

WESTERN AUSTRALIA

CHRISTIAN GENTLEWOMAN, small build, 50s, creative & artistic, quiet but feisty, passionate gardener, loves country (lives Perth outskirts); values honesty, integrity, courtesy. 'My home is my creation, my life is my art'. Looking for a good man to share love & laughter, joy & sorrow. Reply: Marianne (GR138), PO Box 117 SEYMOUR 3661.

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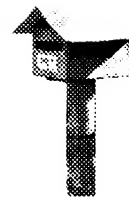
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